A STUDY ON

NEER PEENISAM

(SINUSITIS IN CHILDREN)

Dissertation submitted to

THE TAMILNADU Dr. M.G.R MEDICAL UNIVERSITY

Chennai-32

For the partial fulfillment for the requirements to the Degree

of

DOCTOR OF MEDICINE (SIDDHA)

(Branch IV - KUZHANTHAI MARUTHUVAM)

DEPARTMENT OF KUZHANTHAI MARUTHUVAM

GOVERNMENT SIDDHA MEDICAL COLLEGE

PALAYAMKOTTAI – 627 002.

October– 2016

GOVERNMENT SIDDHA MEDICAL COLLEGE

PALAYAMKOTTAI, TIRUNELVELI -627002.

TAMILNADU, INDIA

phone : 0462-2572736/2572737/Fax:0462-2582010

Email: gsmc.palayamkottai@gmail.com

BONAFIDE CERTIFICATE

This is to certify that the dissertation entitled "**A STUDY ON NEER PEENISAM"** is a bonafide work done by **Dr.S.PRIYADHARSHINI,** Govt. Siddha Medical College, Palayamkottai in partial fulfillment of the university rules and regulation for award for **M.D(SIDDHA), BRANCH-IV KUZHANTHAI MARUTHUVAM** under my guidance and supervision during the academic year **2013-2016 OCTOBER.**

Name and signature of the Guide:

Name and signature of the Head of Department:

Name and signature of the Principal:

GOVERNMENT SIDDHA MEDICAL COLLEGE

PALAYAMKOTTAI, TIRUNELVELI -627002.

TAMILNADU, INDIA

phone : 0462-2572736/2572737/Fax:0462-2582010

Email: gsmc.palayamkottai@gmail.com

DECLARATION BY THE CANDIDATE

I hereby declare that this dissertation entitled. "**A STUDY ON NEER PEENISAM**" is a bonafide and genuine research work carried out by me under the guidance of Prof.**DR.D.K.SOUNDARARAJAN, M.D(SIDDHA).,** Head of the Department, Post Graduate Department of **KUZHANTHAI MARUTHUVAM** Govt. Siddha medical College, Palayamkottai and the dissertation has not formed the basis for the award of any Degree, Diploma, Fellowship or other similar title.

Date :

Place :Palayamkottai

Signature of the Candidate

DR.S.PRIYADHARSHINI

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INTRODUCTION

Siddha system of medicine is one of the ancient traditional system of medicine. In Indian religion, “one who has attained perfection and bliss. The system is believed to be developed by the 18 siddhars of the south popular called this siddhars.

Siddhars were spiritual adepts who possessed the ashtama siddhis, or the eight supernatural powers.

Sage Agathiyar is considered the guru of the sidhars, Agathiyar is the first siddhar and his 18 disciples contributed thousands of texts on siddha, including medicine, and from the profounder of the system in this world.

The basic theory of siddha system of medicine is “food is medicine - Medicine is food”. The human body is a composite of three humours such as vatham, pitham and kapam and seven physical mechanisms such as saaram (plasma), Senner (blood), oon (muscle), kozhuppu(fatty tissue). enbu (bone), Moolai (brain) and sukkilam or suronitham (Semon (or) Ovum). The food is considered to be fundamental building material of human body, which gets administered into humours, tissues and wastes. The siddha medicine recognizes predominance of vatham, pitham and kapam in childhood, adulthood and the old age respectively.

Siddha medicine is claimed to revitalize and rejuvente dysfunctional organs that cause the disease and to maintain the ratio of vatham, pitaham and kapam. According to the siddha medince, various psychological and physiological functions of the body are attributed to the combination of seven elements. In siddha medicine also the Physiological components of the human beings are classified as vatham (air) pitham (fire) and kapam (earth and water).

The eveness of humors, body tissues and waste products is studied as health and its imbalance leads to disease or pathologic state. This system also deals with the thought to immortality and salvation in this life. The Exponents of this system belive that achievement of this state is possible by controlled diet, Medicine and possessing of mind by yogic or spiritual exercises like meditation and yoga. According to siddha system, the human body, food and the drugs are the replica of the universe,

irrespective of their origin. Siddhars defined 96 principles as the constituents of human being.

They comprise physical physiological, mental and intellectual machanisms of a person. They are nothing but the mineralization neer, theyu, Vaayu, Aakayam these five elements (Bhoothams) are present in every substance but in different proportions Earth , water, fire, air and ether are manifestations of these five elements.

When the normal equilibrium of the three humors (vadham, pitham and kapam) is disturbed disease is caused. The factors, which assumed to affects this equilibrium are environment climatic conditions, diet physical activities and stress. Under normal conditions the ratio between these humors, vatham, pitam and kapams is 4:2:1 respectivley. According to the siddha medicine system, diet and lifestyle play a mojor role not only in health but also in curing diseases. This concept of the siddha medicine is termed as pathyam and apathyam which is essentially a list of “do’s and don’ts”.

In diagnosis examination of eight items is required which is commonly known as Envagai Thervugal. These are Naa (tongue) Niram (Color) Mozhi (voice) Vizhi (eyes) sparisam (touch) Malam (stool) Moothiram (urine) and Naadi (pulse)

The drugs used by the Siddhars could be classified into three groups: Thavara

(Herbal products) Dhathu (inorganic substances) and sangaman (animal products) the drugs used in Siddha medicine are also classified on the basis of five suvai

(Taste) gunam (character) veeriyam (Potency) pirivu (class) and a disciplined regimen of life are advised for a healthy living and to restore equilibrium of humors in diseased condition.

Neer Peenisam is very common disease in the society due to increasing exposure to air Pollution now a day. It is taken up for the authors dissertation study.

In modern system of medicine, **Neer peenisam** is called **sinusitis in children**

The trai drug **kandupaarangi chooranam (internal) Akirakattai Thailam**

(External) are choosen on the basis of classical attributes of respective ingredients according to the specific action which may correct the vitiated humours in Neer peenisam.

AIM AND OBJECTIVES

AIM:

The author's main aim is to collect and review to ideas mentioned **Neerpeenisam** in ancient siddha literatures about disease and also to know the efficacy of the trail drugs **Kandupaarangi chooranam (Internal) and Akirkattai Thailam (External) as internal and External medince from Gunapadam Mooligai Vaguppu** respectively in treating this disease.

The signs and symptoms mentioned in the disease drug **Neer Peenisam** can be compared to the **sinusitis in children** in modern.

PRIMARY OBJECTIVE:

An Observational clinical study on an open clinical trial for the disease **Neerpeenisam** using the Siddha drug **Kandupaarangi chooranam (Internal) and Akirkattai Thailam (External)**

SECONDARY OBJECTIVE:

- To Collect authentic literature and review the siddha literature about the disease.
- To evaluate the disease **Neerpeenisam** clinically by careful examination of Aetiology clinical features Treatment and prognosis
- To describe the unique diagnostic procedure siddha literature for the disease **Neer Peenisam**
- To have the clinical trial in **Neerpeensiam, Kandupaaragi Chooranam (Internal) and Akirkattai Thailam (External)**
- To Evaluate to Biochemical Pharmacological analysis and antimicrobial activity of the trail medicine.
- To study the extent of correlation of **Neer peenisam** explained in siddha literature with **sinusitis in children** in modern literatures
- To make use of modern parameters in the investigation to confirm the diagnosis and prognosis of the patient.
- To educate the patients and their parents in terms of prevention of disease diet, habits and hygienic environment. To flourish the siddha system of medicine.

SIDDHA ASPECT

ehgdprk

NtWngah: %ffilgG Neha› ehfNfhit› %fF ehghajy

,ay:

%ffpd JisfFs rpteJ fhzy› Jkky› fzrpteJ ehtbjy› %ffpy eh ghajy› jiyNehjy› mbffb %fif rpejp rsp ro› FUjp ntspahjy Mfpa ,ayGila NehahFk.

-Neha ehly Neha Kjy ehly jpulL-2
(g.v z.83)

rpurpy fdnyOeJ #iyahy Nuhfk mjpfhpjJ ro NghYk rpuhaNghYk fhzggLk xU tpj %fF tpahjp.

-T.V. ***rhkg rptk gpsis mfuhjp. (g.v z.476)***

nghJFzk:

“ghuggh %yjjpy fdNy kpQrp
gfF tkha fghyjjpy eiuf Nfhhj J
euggh ehrp topNahLk JkKk
epdwilfFk jiyfdfFk gplhpNehtha
Nruggh jpuz L tpOk ehWk ehtpy
UrpawW ehrpapdpy kz K kwW
tuggh ntJgGz lhap rpueh fNo
twwpwqfp fgk nflLk neQrpy jhNd”.

-gpjj gdpr njhFjp A.T.S.V.SKQrpiw.

nghUs:

%yjjpy mdy kpFeJ fghyjjpy eh Nfhhf Fk

ehrpapy eh tbjy

Jkky

%ffiljJ jiy fdfFk

gplhp NehFk

ehwwk c z lhFk

Ritapdik

ehrpapy k z k mwpahJ

rpurpy ,UeJ eh fNo ,wqfp neQrpy fgk flLk.

Neha tUk top:

gdpr epjhdk

“jeij jha F z jjpdhYk jdDl ghtjjhYk

jha jeij Kdnraj fhkjjhYk #iyahYk

ngejkha gdprk jhd ngUjjNjhh rpfggpdhYk

kdkjhf teJ kUtp tpLk fpuejp jhNd”

“jhnd dw fpuejp Nehafs jejpLk rpurpy KdNd

Cnd dw gdprk jhd cwwpLk rpurpy gpdNd

ghNd dw gdprjjpy gwwpa Nuhfk nrhyy

jhnd dw cikahSffrd etpdwNjhh Ehypjhna”

- *kjiy Neha njhFjp-Igv z - 370*

nghUs:

ngwNwhhfspd Fzjjpdhyk

ngwNwhh Kdnrajfhk tpidahyk

#iyahyk rpfggpdhyk

Kjypafhuzqfshy Foeijf SfF jiyapy fpuejp Njhdwk.

fpuejpia njhlheJ gdpr Neha czlhtjhf gdpr epjhdk Ehy $WfpwJ.

kpff Fsphej eiug gUFjy gdp myyJ Fsphej fhwwpyLgly. jdf nfhtthgGif› GOjp $ba fhwW Jkkiy Azlhfff$ba nghUsfshd ,twiw Kfhjy. cly ntggileJss NghJ rNunyd lajijg ngUfff $bajhd Fsphej ehpy jiy KOfy. Fsphrrp jUk nghUsfis clnfhssy Mfpatwwhyk ,eNeha gpwfFk. mdwpAk Nkf NehafFj Jizaha ,eNeha tUtJzL.

rpjj kUjJthqf RUffk

tpopeh:

“tpopapdpy eulffpy

tpjkhd ,UjNuhfk

topaL gdprqfs

tejpLk Nejju Nuhfk

mOfpLk rpurpy Nuhfk”

Jkky:

"Jkkiyj jiljhd nrajhy
njhFjjpLk jiyNehA zlhk
,kikapejphpa nkyyhk
,ayGld njwpjj yhFk
nrkikapy Kfk typjjy".

- g.v z - 196

epjjpiu:

"epjjpiu alqfpg Nghf
epfoejpLk fUkq Nfsha
epjjKk jiyf fdgG
epdw f zNzha jhfp
rpjjjjpw nrtpL zlhfpf
njsptW NgrR K zlhk".

Jkky› epjjpiu› f z ziu mlfFtjdhy %ffilgG Neha czlhFk.

-g. v z - 208

%ffilgG ,Uky:-

"nraaNt ,UkNyhL Nfhio tOk
NrIkkhapidgNghL ,iugG zlhFk
cggkha tapwJT %jpf nfhsSk
C Zwff kpyyhk YyUe Njfk
Fggkha kyryKq fWfp tOk
Nfhioapl F zejhd kd ftprr bfFk
Jggkha RU z L tapW typAkhFk
Rthr gir nkdNw #lblhNa".

- rpj.k - 222 gps isggp zpkUj Jtk g.v z - 143

nghUs:

- , UkNyhL Nfhio tpOk.
- rpNylk , isgNghL , iugG cz lhFk.
- tapW cggp Cjpf nfhsSk.
- grp cwffk , yyhky , UfFk
- kyryk fWfp tpLk.
- Nfhioapy kd ftprr ehwwkpUfFk
- tapWtyp cz lhFk
- , twiwRthr gdprk vdW , eEhy $WfpwJ.

KwFwpF zqfs:

- %ffpy xUtif vhprrYk eikrrYk cz lhfp mjidj jhqf KbahJ %fFjJisia NjajJ rptffr nraAk.
- gpd fz rpteJ eh tbAk
- %fF miljjhw Nghy Ngrr nraJ fhjilgG> fhjpy eikrry cz lhFk.
- jiy Neha> %rR csthqfTk> ntsptplTk Kbahik vdDk FwpF zqfisAk fhlb %ffpypUeJ jhdwpahkNyNa gdpeh Nghy nfhlLk.

Mjkulrhkphjk:

- %yjjpy fdNywp fghyjjpy eiuNawwp xU ehrpiaailjJ xU ehrpapy eh tbAk.
- mbffb Jkky tpOjy
- gplhpAk> jiyAk fdjJ typfFk
- Njfjjpy ntJgG
- ehtpy Ritapdik
- kz Kk nfLk

[tulrhkqhjk: (ehrqNuhf Ngjk)

- mjqf Jkky
- ehrqaqy NgRt J Nghy NgRjy
- %ffqy Jhffejk tRjy
- jiyNehT ,itfSkczlhFk.

Nehaqd tifgghlbay:-

gdqr tiffs:-

Neha ehly Neha Kjy ehly jqulL

9 tiffs

- tsqgdqrk
- moy gdqrk
- lagdqrk
- eh gdqrk
- FUjqgdqrk
- rogdqrk
- rquhagdqrk
- Kisgdqrk
- fzlgdqrk

T.V rhkgr‰tk g‰sis

7 tiffs

- thj gd‰rk
- g‰jj gd‰rk
- r‰Nyl Lk gd‰rk
- eh gd‰rk
- ro gd‰rk
- ,ujj gd‰rk
- r‰uha gd‰rk

Mjkulrhk‰hj rhurqf‰ufk vdwE}y $Wtjht J

‘fhgghd thjgd‰re jhdhFk

fUj‰aNjhh g‰jj gd‰rK khFk

thgghd r‰Nyjk gd‰rKkhFk

tFjj ehgg d‰rkhk rgg d‰rk

Nrgghd Tj‰u gd‰rKkhFk

nro‰gghd r‰whgg d‰r %ygg d‰rkhk

Mgghd fzl gd‰]ejhdhFk

mggNe xdgJ t‰j j‰z z khNk”.

9 tiffs

- thjgg d‰rk
- g‰jjg d‰rk
- fggg d‰rk
- ehgg d‰rk
- ,ujjgg d‰rk

- rogg d ṛ r k
- r ṛ uhagg d ṛ r k
- % y gg d ṛ r k
- f z l gg d ṛ r k

[t u l r hk ṛ h j k

18 t i f f s

- t h j g d ṛ r Nuh f k
- g ṛ j j g d ṛ r Nuh f k
- r ṛ Ny j k g d ṛ r Nuh f k
- j ṛ h ṛ Njh \ g d ṛ r Nuh f k
- , u j j g d ṛ r Nuh f k
- J \ l g d ṛ r Nuh f k
- ehr ṛ f hNrh \ g d ṛ r Nuh f k
- ehr ṛ f h ehf g d ṛ r Nuh f k
- f ṛ u d Nk f g d ṛ r Nuh f k
- ehr ṛ f hr ṛ u t g d ṛ r Nuh f k
- mg d ṛ r r ṛ u t g d ṛ r Nuh f k
- G+j ṛ ehr ṛ f h g d ṛ r Nuh f k
- G f r ṛ u ehr ṛ f h g d ṛ r Nuh f k
- ehr ṛ f h J kg ṛ f i f g d ṛ r Nuh f k
- ehr ṛ f h G+j f g d ṛ r Nuh f k
- ehr ṛ Nuh f g d ṛ r Nuh f k
- ehr ṛ f h mwGj g d ṛ r Nuh f k

kj iyNeha njhFjp I

“fhgghd nujjnkhdW f z bLk # iynahdW

Nehgghd ryTnkhdW ep h z a kwpa Nt z b

Chgghd Nghfs %dW cwwpLk rhjjpak mrhjjpak

Nrhgghd rhjjpujij jhuzpapy rhwwfNfNs”.

3 tiffs

- ,ujj gdprk
- Rugdprk
- # iygdprk

rpjjh mWit kUjJtk

4 tiffs

- ehgdprk
- FUjpgdprk
- rogdprk
- rpuhagdprk

ehgpdpr FwpF z qfs

- Fsph fhwwpyLgly
- Fsphej ehpy jiy KOfy
- kpf Fsphrrpahd eh tif myyJ c z Tfisf nfhssy
- jdfnfhtth kz %lLk nghUlfNsDk JkG J}rpfNsDk %ffpy EioAk gbahf Nehjy
- clNd %ffiljJj jdfFj njhpahkNy %ffpdpdW eiur nrhllr nraAk.

- , j d ℘ y t b A k e h k ℘ f j n j s ℘ t h f T k f h z g g L k
- j i y N e h a r ℘ W R u k › c l y N r h k g y › i f f h y N e h j y M f ℘ a i t c z l h F k .
- e h r ℘ e h t b e J k i o f h y j j ℘ y J k k y › f O j J t y ℘ › g ℘ l h ℘ A k K f K k C j y M f ℘ a i t c z l h F k .

K f F w w N t W g h L f s :-

- c z T K j y ℘ a n r a y f s h y c l y n t g g k i l e J m o y K w W k k ℘ F e j N g h J l a j i j g n g U f f f $ b a n r a y f s h y g ℘ w e j l a k m o N y h L $ b g g ℘ w e j N e h a h F k .
- m d w ℘ A k › x f f e ℘ i y a ℘ y f o t h a f f d y k ℘ f n g U f ℘ D k .
- N k y N e h f F q f h y ℘ d t d i k a h y k z i l t i u a ℘ y g h a r r Y s s e ℘ i y a ℘ y l a q $ b D k , e N e h a g ℘ w f F n k d T k r ℘ y E } y $ W k .

g ℘ z ℘ a w ℘ K i w i k :-

g ℘ z ℘ a w ℘ K i w i k v d g J c l i y g g ℘ z ℘ j j y h a N e h i a j n j h ℘ e J n f h s S f ℘ w x O f f k .

, J :-

n g h w ℘ a h y w ℘ j y

G y d h y w ℘ j y

t ℘ d h j y

n g h w ℘ :-

n k a

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f z

% f F

n r t ℘

k U j J t d j d n g h w ℘ f s h y N e h a h s ℘ f s ℘ l k n g h w ℘ f i s m w ℘ j y .

Gyd:-

ehwwk

R i t

x s

C W

X i r

tdhjy:-

Nehahsad FLkg tuyhW› taJ› clytdik› kd cWj› gzG nrhgGjdik› ,awif› czT› thOklk› mttljjd jdik› Nehad taJ Neha Njhdwa fhyk› ,lk› Neha czlhtjwF KdG Nehahsad eiyik Mfatwiw NflLj njheJ nfhs Sjy.

vztifj NjhTfshtd:-

‘ehb]ghrk ehewk nkhotoo

kyk %jjuk it kUjJ tuhAjk”.

- Nehaehly Neha Kjy ehly - 253

ehb:-

Njfjjddljnjass vyyhcWgGfsYk rwejJ ,Ujak. ,jd %ykhfjjhd. jhJffs ahTk Ngh\ffggLfdwd. ,JNt Njfk edd iyayUggjwFk Rfkyyhikffk fhuzk. ,jdnjhoy NtWghLfis ehbfs czhjJk.

ehb eil rhahfj Njhdwhj eiyfs:-

“nfhzblNt faNuhf fhrNuhf

FwNghff rwwdgk nraj Nghfs

mzblNt jhjjuhfs tUjjh ghyh

mdghfj jz zhy %ofNdhhfs

nfhzblNt ,thfsJ cWggd jhJ

$wNt KbahJ vthfFf flLk

gzblNt aggghlir ahhjhd fhzghh

guhgujjd kfikaJ ghUghNu”

(Neha ehly Neha Kjy ehly - 162)

ehe‰wf Fw‰:-

‘mUeJ khw‰ujKk mt‰Nuhjkjha

m/fy myhjy mfhyT+d jt‰hejow

Fwwstuej‰ cwqf‰ itfiw

Mbffyrj jht‰Na fhJnga

njhUK$hjjf fiyfFlgL eh‰d

e‰wfFw‰ neafFw‰ e‰Uk‰jjy flNd”

- Neha ehly Neha Kjy ehly (g.vz.-282)

neafFw‰:

Foeijfs‰d ehb eil rh‰ahf fd‰ggj‰y r‰ukk csjhy neafFw‰ gh‰Nrhjid %yk Nehahsh vfFwwjjhy ghj‰ffgglLssd vdgjid ftd‰ffyhk.

“e‰wfFw‰f Fiuej j‰Ukhz eh‰w

r‰wff ntznzaNahh r‰WJs‰eLt‰Lj

njdwjj‰wenjht‰Nahf jikjj‰

d‰dwj‰tiy Nghk new‰t‰o‰ggw‰Tk

nrdwJ GfYQ nraj‰iaGzNu”

- Neha ehly Neha Kjy ehly. (Kjy ghfk-279)

vdgjhy› Nehiar fz Lg‰bjjw nghUlL nrhyy‰a‰Uff‰dw t‰j‰ nghUej‰a r‰Weh‰y vznza xU Js‰ r‰jwhky t‰lL ntay‰yhtJ. meeh‰y gLkgb j‰wej fhwwhdJ mj‰y tj‰ mej vznzaj Js‰ Mlhjgb itjJ› r‰Weh‰y t‰lgglbUff‰dw vznzaj Js‰ahdJ nrhyY f‰dw to‰ahy Nehia mw‰eJ nfhssyhk.

‘mun t z e z bbd/Nj thjk”

‘Mo Nghwgu t d m/Nj g j j k”

‘K j n j h j J e wf d nkho t n j d fgNk”

-Neha ehly Neha Kjy ehly Kjy ghfk gf.v z .279

K f F wwk:-

j rehbf s gj j y %yhjhukhf e dwJ ,l f i y› g q f i y› Ro K i d v d %dW ehbf shFk. ,ej %yhjhu ehbf i s K iwNa mghd d› g uh z d› rkhd d v d Dk thQf f s d ,af f j j hy t Lk R t hrk v d yhk.

,l f i y + mghd d = thjk - 1 khj j iu

g q f i y + g uh z d = g j j k - ½ khj j iu

Ro K i d + rkhd d = l ak - ¼ khj j iu

thjk:-

t s x dwha Ugg Dk jk ,lk› njho y Kjy atwwhy gj J t i fggLk.

th i r v z	**thjk**	**,Ugg lk**	**njho y**
1.	g uh z d	j kuf j j d dW %f F t i u	k d k› Gj j › c s s k› l knghw ,i t f i s j j d d i yggL j j › f hw Ak o j y› ,Uky› Jkky› Vggk t ly› %rR t ly thq f y c z Zk c z i t c lnrY j j y M f ai t.
2.	mahd d	vU tha y dW mb t a W	n t z z h› ehj k› kyk› r Weh› f U ,t w i w n t s ggL j J k.

		,Uggpd G+lL› ehgig Mz ngz Fwpfs› njhil.	
3.	rkhdd gfFthrak (tapW)	gfFthrak (tapW)	rhujijAk› jpggpiaAk nttNtwhf gphpjJ› rhujij clypd vyyh ghfqfSfFk gfpheJ nfhLfFk.
4.	tpahdd	jkufk	eljjy› cly cWgGfis mirjjy› fz ,ikjjy tpopjjy.
5.	cjhdd	khhG	NgrRfF Kjwfhuzkha ,UeJ› Kawrp› kdjpy clytdik< clyepwk› clyxsp epidT Mfpait.
6.	ehfd	fz	fzfisj jpwffTk ,ikffTk nraAk kaphfis rpyphffr nraAk.
7.	$hkd	kdjpypUeJ fz tiu	,ikia nfhlLtpfFk› nfhllhtp tplggz Zk thia %lggz Zk.
8.	fpUfud	ehfF	ehtpw frpitAk› ehrpapw frpitAk czlhfFk› kpFej grpiaAzlhfr nraAk› xdiw epidjjpUff czlhfFk.
9.	Njtjjjd	Fjk› Faak	Nrhkgy› cly Khpjjy czlhfFk jhqFjy› rzil nfhssy› jhffk Ngry› kpFej Nfhgk czlhfFk.

10.	jdQnrad	%fF	,wejhy fhwW ntsggll gdG %dW ehsy jiy ntbjJg NghFk.

eh gdrjjy guhzd› tahdd› cjhdd› rkhdd› ehfd› $hkd› fUffud ghjggilAk.

guhzd : %rRtl rukk› Jkky› ,Uky

tahdd : jiytyp› jiyghuk

cjhdd : Jkky

ehfd : fzfsy ty

$hkd : fz zy ehtbjy

fUfud : Jkky› %ffy eh tbjy

gjjk:-

thir vz	**gjjk**	**,Uggl k**	**njhoy**
1.	mdwgjjk	,iugigfFk gfF thrajjwF ,ilay	eh tbt Kss nghUsfis twsr nraJ› czl czTg nghUsfis nrhffgz Zk.
2.	,uQrfk	,iufFly	czt yUeJ ghpeJ zlhd rhwWfF nreewjij jUfwJ.
3.	rhjfk	jkufk	kdk› Gjjp gwW ,twiwf nfhzL tUggkhd njhoiy nraAk.

4.	MNyhrfk	f z	vyyhg nghUsfspd tbtjijAk mwpjyhfpa fhhpajijr nraAk
5.	gpuhrfk	Njhy	NjhYfF xspiaf nfhLfFk.

ehgdprjjpy; rhjfk; MNyhrfk ghjpggilAk.

rhjfk : jd mdwhl Ntiyia nraa rpukk

MNyhrfk : f z zpy eh tbjy; f z zpy typ

lak:-

thpir vz	**lak**	**,Uggplk**	**njhopy**
1.	mtykgfk	Eiuauy	kww ehdF laqfSfFk gwWf Nfhlhapufk.
2.	fpNyjfk	,iugig	c z zggll c z Tg nghUlfs eh Kjypaitfis <uggLjjp nkjnjd nraAk.
3.	Nghjfk	ehfF	c z tpd Ritia mwpaitfFk.
4.	jwgfk	jiy	f z ZfF Fwphrrp jUk.
5.	rejpfk	fyfs	fyfis xdNwhnlhdW nghUjjpj jsur nraAk.

eh gdprjjpy mtykgfk; jwgfk ghjpggilAk.

- mtykgfk: ,Uky
- jwgfk : f z zpy ehtbjy; f z vhprry.

gUtfhyqfs:-

G+kp Qhapwiwr Rwwp tUtjwF Xh M z L MfpdwJ. ,J ngUk nghOjhk. ,J MWgFjpfisg ngwWssJ mit.

- fhhfhyk - Mtzp; Gullhrp (August, September)

- $jhfhyk - lggr fhhjjif (October, November)
- Kdgdfhyk - khhfo ij (December, January)
- gdgdfhyk - khr gqFdf (February, March)
- ,sNtdfw fhyk - rfjjfiu itfhrf (April, May)
- KJNtdfwfhyk - Mdf Mb (June, July)

efyk:-

kffsfd jdik mthfs trfFk efyjij nghUjNj mikAk. ahtwwfwFk efyNk Mjhukhf ,UffwJ.

efyk leJ tifggLk mit

- FwfQrf - kiyAk kiy rhhej ,lKk
- Kyiy - fhLk fhL rhhej ,lKk
- kUjk - taYk tay rhhej ,lKk
- neajy - flYk fly rhhej ,lKk
- ghiy - kzYkkzy rhhej ,lKk

clwjhJffs

VO tifggLk mit.

thfir vz	**clwjhJffs**	**njhofy**
1	rhuk	cliyAk kdijAk CffKwr nraAk
2	nreeh	mwfT tdik xsf nrUfF xyf ,itfis efiyffr nraAk
3	Cd	clyfd cUtjij mjd njhofwfz qf mikjJ vdig tshfFk
4	nfhOgG	fbdkfdwf ,aqf cjTk

5	vdG	cliy xOqFgl epWjjp itffpwJ
6	%is	vdGfFs epiweJ mitfSfF tdik kwWk nkdik jUk
7	ntz zh	jdid nahjj cUtk ngUffpwF ,lkhfpa fUjNjhwwjjpwF Kjyha epwgJ

ehgdpjjpy rhuk› nreeh ghjpggilAk

vztifj NjhTfs:-

vlL NtWgll Nrhjidfis Nehapd ghy Nkwnfhz L kUjJtd Nehapid fzpfFk KiwikNa vztifj NjhTfshk. mitfis m\ltpj ghpli\ vd tlnkhop Ehwfs gfUfpdwd.

mitahtd

1. ehb
2.]ghprk
3. eh
4. epwk
5. nkhop
6. tpop
7. kyk
8. %jjpuk

1. ehb:

clypy caph jdpjjpUggjwF fhuzkhdnjJNth mJNt ehb myyJ jhJ MFk.

,qF MatpwF clgLjjggll FoeijfSfF gpjjthj ehb› fgthjehb› gpjjfg ehb fhzgglIJ.

(i) gpjjthj ehb

"rpwgghd gpjjjjpy thjehb

NrhpYWjhJehll Kjugil

c iwgghfr nrhpahikf fpdkQ #iy

cwwRuq fpuhzptapwwpiurry kejk

miwgghd Xqfhu Gwehf Nfhit

Mahr kpuffnkhL kaff %hrir

KiwffhaT tp\tffk %y thaT

Kulhd NehagyT KLFkgzNg"

-*(rjf ehb)*

-Neha ehly NehaKjy ehly jpulL ghfk - I› g.vz - 184

(ii) fgthjehb

"fzlhNah rpNywgzjjpy thj ehb

fyejpLfpy tapW nghUky fdjj tffk

czlhNah XqfuQ rfjp tpffy

cWjpulir thaTtyprejpNjhlk

tpzlhNy ,isggpUky Nrhigghz L

tplghfk tpl#iy gff thjk

jpzlhL ehrpfh glq fffy

rpuNehafs gyTk teJ rpfFejhNd

(rjfehb)

-Neha ehly NehaKjy ehly jpulL ghfk - I› g.vz - 186

(III) gpjjfgehb

"gzghd gpjjjjpy NrjJk ehb

ghprpjjh yjjpRu gpisgG<id

f z fhJ eadkyk eU kQrs

f d ta W nghUky kQrs Neha f z NehT

t z NghJ kwjjy ,ujj tgGUj jhDk

c i skheij gdrKk ,ujj t f f k

e z ghd fhkhiy Nrhif ntgG

eZ f tej gyg z Ak e z Ze jhNd"

(rjf ehb)

-Neha ehly NehaKjy ehly juulL ghfk - I g.v z - 185

2.] gh rk

- cly#lhAk› ty› t f f k fh z ggl l J

3. eh

- eht y Ri taw ahik

4. e wk

- %f f d Ed rteJ fh z ggl l J

5. nkho

- K f f i l j J %f fhy NgRt J Nghdw xy

6. t o

- f z rteJ›vh rrYld fh z ggl l J. f z z y eh tbeJ fh z ggl l J

7. kyk

- Fw gg Lkgb vej khwwKk ,y i y.

8. %j j uk

- ,ayghf fh z ggl l J

kUjJtk

"Nehaehb Neha Kjyehb mJ j z⁄fFk

thaehb thaggr nray"

-j⁄UfFws› kUeJ mj⁄fhuk

"cwwhd sTk g⁄ z⁄asTk fhyKk

fwwhd fUj⁄r nray"

-j⁄UfFws› kUeJ mj⁄fhuk

kUjjt to⁄Kiw

Ia Fwwj i j jd d⁄iygLjjNt z Lk

gjj⁄ak

"gjj⁄ajj⁄dhNy gyD z lhk kUeJ

gjj⁄aqfs Nghdhy gyd NghFk gjj⁄ajj⁄y

gjj⁄aNk ntww⁄jUk g z bjhfF Mjy⁄dhy

gjj⁄aNk cjj⁄ nadW ghh"

-(Njiuah)

kUeJ z Zk fhyqfs⁄y Nehahs⁄a⁄d Neha⁄d jdik nghUjJ c z T kwWk nrayfs⁄y MFk. Mfh gjj⁄aqfs mw⁄TUjjggLf⁄wJ.

c z T

MFk gjj⁄ak

"gjj⁄aq Nfho⁄ Kl i l gRkghy Kjjnea KUq i fa⁄i y

kwWk e⁄fh⁄y fjjh⁄f $ lLk gjJNkJ i tu jhDk

g z ghd gd⁄rk NghNk"

-F z ghlk

nghUs:

- Nfho Klil› gRkghy› Mkzf F nea› KUqifa iy› fjj hf $lL› Jtiuclnfhss gd rk eqFk
- czt y clwF ntggjijj jUk nghUfshfNt nfhs Sjy Ntz Lk.
- k s F Nrhej ,urk› FokG tif nfhs Sjy
- fh rhiy kzjffhs fjj hggQR Nghdw fhafw fis nfhs Sjy

Mfhgjj ak:-

Riuffha› G+rz ffha› ghfF› Gliy Kjy a lajjijg ngUfff $baitifis eff itggJ k f edwhk.

Neha jLgG Kiw khwwk kUjJt mw Tiu

- Nehahs jdfF xtthj nghUlfis fz lw eJ mjid eff Ntz Lk
- Rfhjhukww czTtiffs kwWk eh id jt hffTk
- Fs hfhwW› gd fhww y ntsa y nrytij jt hffTk
- czt id ,sQ#lby czz Ntz Lk
- ,ut y czit rff uk czL r w J Neuk nrdw g dG cwqf nryy Ntz Lk.
- Neha vj hgG rfj ia jUk rjJss czTfis czz Ntz Lk.
- Gh eJ nfhs Sk taj Yss Foeijf SfF g uzhahkk Nghdw vs a %rRga wr Kiwfis fwWjUjy Ntz Lk
- fgNeha csssthfs r wwrrgha y cwqfyhk vdW $wgglLssd.

MODERN ASPECT

ANATOMY OF SINUS:

Sinus is a sac cavity in any organ or tissue, or an abnormal cavity or passage caused by the destruction of tissue. In common usage, “Sinus” usually refer’s to the paranasal sinuses, which are air cavities in the cranial bones, especially those near the nose and connecting to it. Most individuals have four paired cavities located in the cranial bone or skull.

Sinus is latin for “bay”, “pocket”, “curve”, or “bosom”. In anatomy, the term is used in various contexts.

The word “Sinusitis” is used to indicate that one or more of the membrane linings found in the sinus cavities has become inflamed or infected.

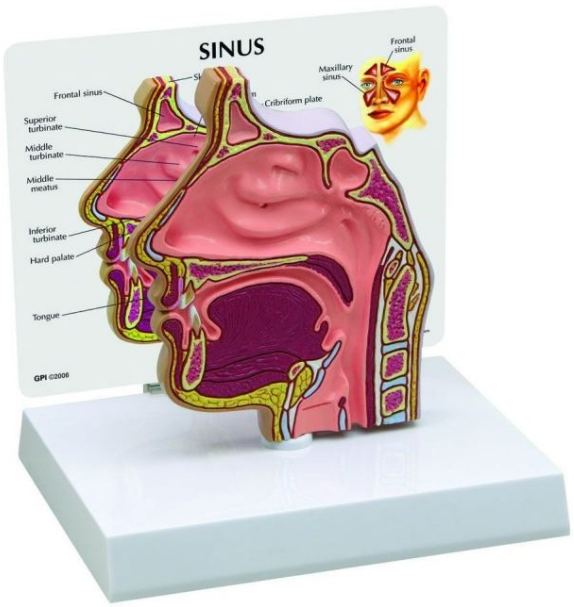
It is however distinct from a fistula, which is a tract connecting two Epithelial surfaces. If left untreated infections occuring in the sinus cavities can affect the chest and lungs.

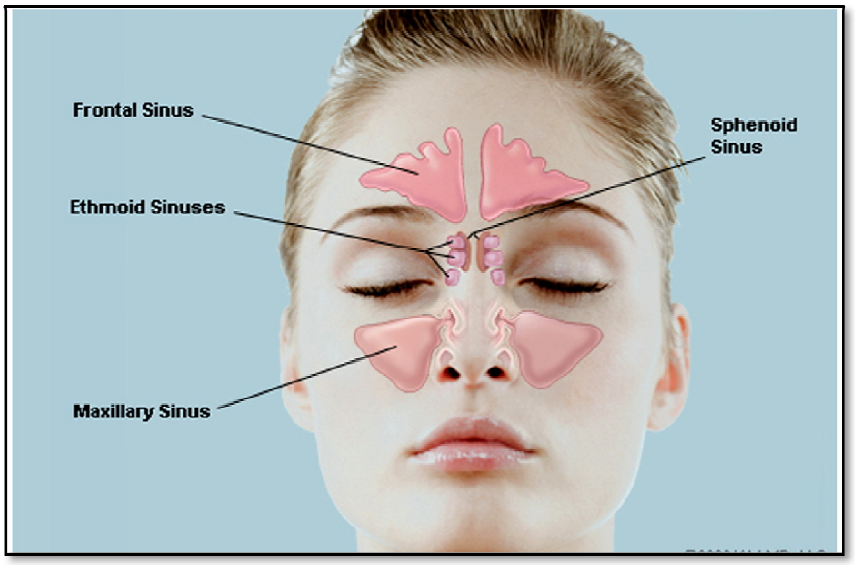
- Paranasal sinuses
- Maxillary
- Ethmoid
- Spenoid
- Frontal
- Subcapsular sinus
- Medullary sinuses
- Trabecular sinuses

- Dural venous sinuses
- Inferior sagittal
- superior sagittal
- Straight
- Occipital
- Confluence of sinuses
- Cavernous
- Inferior petrosal
- Transverse
- Sigmoid
- Carotid sinus
- Renal sinus
- Coronary sinus

The Development of the sinuses			
Sinus	**Gestational Month When Development Starts**	**Present In Clinically Significant Size**	**Fully Developed**
Maxillary	2	Birth	12 years
Ethmoid	3	Birth	12 years
Frontal	4	3 years	18-20 years
Sphenoid	3	8 years	12-15 years

SINUSITIS


SINUS
Frontal sinus
Maxillary sinus
Cribriform plate
Superior turbinate
Middle turbinate
Middle meatus
Inferior turbinate
Hard palate
Tongue
GPI ©2006


Frontal Sinus
Sphenoid Sinus
Ethmoid Sinuses
Maxillary Sinus

THE FOUR PAIRED SINUSES OR AIR CAVITIES CAN BE REFFERED TO AS :

- Ethmoid sinus cavities which are located between the eyes.
- Frontal sinus cavities which can be found above the Eyes (more in the forehead region).
- Maxillary sinus cavities are located on either side of the nostrils (cheekbone areas).
- The maxillary sinus is the largest paramasal sinus and lies inferior to the Eye in the maxillary bone. It is the first sinus to develop and is filled with fluid at birth. It grows according to a biphasic pattern, in which the first phase occurs during years 0-3 and the second during years 6-12.
- The sphenoid sinuses that are located behind the eyes and lie in the deeper recesses of the skull.

The presence of sinus cavities with in the cranial bone (skull) is essential for the following reasons :

- Sinus cavities allow for voice resonance.
- They help filter and add moisture to any air that is inhaled through the nasal passages on to of filtering and adding moisture to the air we inhale, they also help in the removal of unwanted particles from the sinus cavities.
- Sinus cavities provide a means to lighten the overall weight of the skull.

SINUSITIS

- Sinuses are moist air space within the bones of the face around the nose. When they become infected and swellor become irritated this is called sinusitis.
- Sinusitis is common illness of childhood and adolescence with significant acute and chronic morbidity as well as the potential for serious complications.
- There are 2 types of Acute sinusitis, viral and bacterial. The common cold produces a viral, self – limited Rhinosinusitis. The frontal sinuses may become involved only after 5-6 years of life.
- Risk factors associated with sinusitis include recurrent upper respiratory infections (URI).
- Allergic rhinitis
- Cystic fibrosis
- Immunodeficiency
- Ciliary dyskinesia
- Day care attendance

ETIOLOGY

The sinuses are four sets of hollow spaces that are located in the cheekbones (maxillary sinus). The forehead (frontal sinus), behind the nasal passages (ethmoid sinus) sinuses are lined with the same membranes that line the nose and mouth.

When some one has a cold or allergies and the nasal passages become swollen and make more mucous, so sinus tissues. The drainage system for the sinuses can get blocked, and mucous can become trapped in the sinuses. Bacteria viruses and fungi can grow. There and lead to sinusitis.

The most common is dates in acute sinus infections are S.pneumoniae, M.Catarrhalis. These same bacteria are implicated in chronic sinusitis, as are S.aureus, Anaerobes, H.influenzae, α and β haemolytic streptococci, and coagulalse – negative staphylococci.

EPIDEMIOLOGY :

Acute bacterial sinusitis can occur at any age. Predisposing conditions include viral upper respiratory tract infection, allergic rhinitis.

PATHOGENESIS :

Acute bacterial sinusitis typically follows a viral upper respiratory tract infection initially, the viral infection produces a viral Rhinosinusits. Paranasal sinuses in 68% of healthy children in the normal of the common cold. Nose blowing has been demonstrated to generate sufficient force to propel secretions in to the sinus cavities. Bacteria from the nasopharynx that enter the sinuses are normally dead readily, but during viral Rhinosinusitis inflammation and oedema may block sinus drainage and impair. Mucociliary clearance of bacteria. The growth conditions are favorable and high titers of bacteria are produced.

CLINICAL MANIFESTATIONS :

Children and adolescents with sinusitis may present with non specific complaints, including nasal congestion, prulent nasal discharge, fever and cough less common symptoms include bad breath, a decreased sense of smell, and periorbital odema complaints of headache and facial pain are rare in children.

(i) Sinusits can cause different symptoms for kids of varing ages.

Younger kids often have cold – like symptoms, including a stuffy or runny nose and slight fever. If your child develops a fever 5-7 days after cold symptoms begin it could signal sinusitis or another infection.

DIAGNOSIS

INTERROGATION

- The time of onset of symptoms
- Periodicity (variable during the day or seasonal)
- Severity
- Excerbating or relieving factors and other associated symptoms should be asked.

- A full medication history as well as all the medicines used in the the past is important.
- Any family history including atopy, past medical and surgical history and environmental conditions should be sought.

EXAMINATION

Examination of the PNS may be done as follows.

- Examination of nose and face
- Sinus tenderness
- Examination of both ear, pharynx, larynx and neck.

INSPECTION AND PALPATION:

- This is done to defect any deformity, asymmetry or swelling of the nose and face.
- Depression or deviation of the nasal bridge due to injury or disease may be present.
- Gentle palpations of nose work may defect crepitus fractured nasal bones.
- The nose is examind in a good light and any scars are noted (hidden scars)
- The cosmetic “appropriateness” of the face is noted.
- The ears, the mouth and throat must also be examined for evidence of involvement in any nasal condition.
- Good illumination is necessory to inspect the nasal cavities (ie) Ant, rhinoscopy.

The first goal in diagnosing sinusitis is to rule out other possible causes of symptoms, and then determine.

- The site where the infection has occurred.
- Whether the condition is acute or chronic.
- The organism causing the infection (if possible).

IMAGING TECHNIQUES

1.COMPUTER TOMOGRAPHY

Computer tomography (CT) scanning is the best method for viewing the paranasal sinuses.

2. X-RAY :

Until the availability of endoscopy and CT scans, x-rays were commonly used. They are not as accurate, however, in identifying abnormalities in the sinuses. For example, more than one x-ray is needed for diagnosing frontal and sphenoid sinusitis. x-rays do not detect ethmoid sinusitis as accurately. This area can be the primary site of an infection that has spread to the maxillary or frontal sinuses.

3. PREVENTION:

Prevention is best accomplished by frequent hand washing and avoiding persons with colds.

Because acute bacterial sinusitis can complicate influenza infection, prevention of influenza infection by yearly influenza vaccine will prevent some cases of complicating sinusitis.

Immunization or chemoprophylaxis against influenza with oseltamivir or zanamivir may be useful for prevention of colds caused by this pathogen and the associated complications, influenza is responsible for only a small proportion of all colds.

UPPER RESPIRATORY TRACT INFECTION :

Upper respiratory tract infections are those primarily affecting the structures of the respiratory tract above the larynx, but most respiratory illness affect both the upper and lower portions of the tract simultaneously of sequentially.

- Inflammatory infiltrates.
- Edema of the mucosa.
- Vascular congestion.
- Increased mucus secretion.

ETIOLOGY :

- Most acute respiratory tract infections are caused by viruses and mycoplasma
- Strephococci and the diptheria organisms are the major bacterial agents capable of causing primary pharyngeal disease

ALLERGIC RHINITIS

Allergic rhinitis is an inflammatory disorder characterized by sneezing, itching, Nasal blockage , and clear rhinorrhea. The symptoms may be seasonal (hay fever) or perennial the fluid from the nose is usually clear symptoms onset is often with in minutes following exposure and they can affect sleep, the ability to work, and the ability to concentrate at school. Many people with allergic rhinitis also have asthma, allergic conjunctivitis (or) atopic dermatitis.

IgE antibodies attaching to the allergen and causing the release of inflammatory chemicals such as histamine from mast cells.

IMMUNODEFICIENCY :

Children with immune deficiencies particularly of antibody production (Immunoglobulin G(IgG, IgG subclasses, IgA)

TREATMENT :

- Although a significant number of acute sinusitis episodes will resolve spontaneously most authors recommend antibiotics as the cornerstone of treatment.
- As in acute otitis media, antibiotic should be the first line of medical therapy for acute sinusitis. The exact duration of therapy is not clear, but most clinicians feel

that of symptoms have already persisted for 7-10 days, the infection should be treated for at least 14 days.

- Longer courses and second line antibiotic agents are indicated for refactory infections, and parental antibiotics are the agents of choice for sinusitis with orbital or intracranial complications.
- Other adjuvant measures that may have a possible benefit include oral decongestants, mucolytic agents, and topical nasal saline.
- Topical decongestants may be used in sinusitis with complications. Antihistamine are detrimental due to this drying effect on mucosal secretions and are best avoided.
- Antibiotics are also the mainstay of treatment for chronic sinusitis.
- The duration of treatment is longer than for acute sinusitis, typically 3 to 6 weeks.
- Patients who have a true penicillin allergy may be treated with a macrolide antibiotic, although there is increasing resistance of sinus pathogens to these drugs.
- Topical nasal steroids may also play a role in the treatment of chronic sinusitis.
- Surgical intervention for acute sinusitis is limited to those with orbital or intracranial complications.
- Surgery may also be considered for patients with chronic sinusitis who have not responded to aggressive medical management.
- First line surgical therapy usually consists of adenoidectomy to remove the adenoid pad as a bacterial reservoir for the sinuses.
- Significant controversy exists regarding the indications for endoscopic sinus surgery (ESS) in pediatric patients.
- Selected circumstances in which ESS may be of benefit include patients with sinonasal polyposis, cystic fibrosis, or those who symptoms have not responded to adenoidectomy.

MATERIALS AND METHODS

The study of Neer peenisam was performed under the paper valuable guideline of the Headof the Department of Kuzhanthai Maughuvam department, siddha Medical College, Palayamkottai.

The studies cases were carried out from P.G. Kuzhanthai Maruthuvam department both OPD and IPD in Government Siddha Medical College, Palayamkottai.

SELECTION OF THE CASES:

The cases were selected according to the symptoms and signs mentioned in the siddha text, certain criteria are followed for case selection. They are:

INCLUSION CRITERIA:

- Age – between 7 – 12 years.
- Sex – Male and Female children.
- Pain and tenderness around nose below orbit, and maxillary region.
- Head ache associated with vomiting.
- Fever due to sinusitis
- Nasal congestion due to sinusitis.
- HIO recurrent upper respiratory tract infections.
- Chronic rhinitis and sneezing due to sinusitis.

EXCLUSION CRITERIA:

- More then 12 years.
- Severe and recurrent epistaxis due to sinusitis.
- TB rhinitis
- Congenital anamolies of sinuses.
- Sinuses agenesis imperfeeta
- Rhinosporidiasis.

WITHDRAWAL CRITERIA:

- Exacerbations of symptoms
- Intolerance to the drug and development of adverse reactions during the drug trial any other acute illness.
- Patients turned unwilling to continue in the course of clinical trial.

TERMINATION CRITERIA:

- Not reporting subsequently
- Voluntary termination.

Sample Size : 40 patients

ASSESMENTS AND INVESTIQATIONS CLINICAL ASSESSMENT:

- Pain and tenderness around nose, between orbit, and maxillary region.
- Headache associated with vomiting.
- Fever due to sinusitis.
- Nasal congestion due to sinusitis.
- HIO recurrent upper respiratory tract infections.
- Chronic rhinitis and sneezing due to sinusitis.

SIDDHA TESTS AND ASSESSMENTS:

I. UDAL KATTUKAL

Saaram

Senneer

Oonn

Kozhuppu

Enbu

Moolai

Sukkilam / Suronitham

II. ENVAGAI THERVU

- Naadi
- Sparisam
- Naa
- Niram
- Mozhi
- Vizhi
- Malam
- Moothiram

III. NEERKURI

IV. NEIKURI

ROUTINE INVESTIGATION:

Blood:

- Total WBC count
- Differential WBC count
- ESR
- HB
- Absolute Eosinophil count

SPECIFIC INESTIGATIONS:

- X – ray : PNS
- Chest X – Ray PA view

DATA COLLECTION FORMS

Required information will be collected from each patients parents / guardian by using following forms.

FORMS

FORM I	:	Screening and selection proforma.
FORM IA	:	History proforma on Enrolment.
FORM II	:	Clinical assessment on enrolment.
FORM II A	:	Clinical assessment during and after trial
FORM III	:	Laboratory Investigation on enrolment and conclusion of trail.
FORM IV	:	Consent form
FORM IV B	:	Withdrawal form
FORM IV C	:	patient information sheet
FORM IV D	:	Dietary Advice form
FORM IV E	:	Adverse reaction form
FORM IV F	:	Discharge proforma

METHODOLOGY OF TREATMENT :

STUDY ENROLMENT:

Patient's parent or guardian reporting at the OPD with child associated with clinical features of nasal discharge, nasal blockage, conjuctival irritation, lacrimation, pain and tenderness around nose, below orbit, in the maxillary region, recurrent upper respiratory tract infections are chosen for enrolment based on the inclusion criteria. The patients who are enrolled are informed about the study trail drug, possible outcomes and the objectivies of the study in the language and terms understandable to them and the informed consent / Assent form would be obtained from the patient / patient's parent or guardian using consent / Assent form.

CONDUCT OF THE STUDY:

On the first day onwards the trail drug "KANDUPAARANGI CHOORANAM (INTERNAL) AND AKIRKATTAI THATLAM (EXTERNAL)". Will be given for 24 days. The trail drug will be given in the OPD department of Kuzhanthai Maruthuvam, Government Siddha Medical College and Hospital Palayamkottai. The patients will be asked to have a regular follow up in the OP department once in 7 days. In each and every visit the clinical assessment will be recorded in the prescribed proforma. The laboratory investigation will be done before and after treatment and recorded in the prescribed format.

DATA MANAGEMENT

After enrolling the patients in the study, a separate file for each patient will be maintained and all forms will be kept in the file. Study no and patient's no. will be entered on the top of the file for easy identification. Whenever the patient visits OPD during the study period, nessary entire, will be made at the assessment forms.

The screening forms will be filled up separately. The data recordings and adverse events, of any, will be monitored by the head of the department and pharmacovigilance committee.

OUTCOME OF TREATMENT:

PRIMARY OUTCOME:

Primary outcome is mainly assessed by comparing the reduction in clinical symptoms are recurrence before and after treatment.

SECONDARY OUTCOME:

Secondary outcome is assessed by comparing the safety parameters before and after treatment.

ADVERSE EFFECT / SERIOUS EFFECT MANAGEMENT

If the trial patient develops any adverse reaction, he/she would be immediately with drawn from the trail and proper management will be given in OPD of Govt. Siddha Medical College and hospital Palayamkottai.

ETHICAL ISSUES:

1. Informed consent / Assent will be obtained from the patient / patient's parent or guardian after explaining about the clinical trial in an understandable language.
2. After the consent of the patient (through consent / Assent form) if they fil in the Giteria they will be enrolled in the study.
3. Treatment will be provide free of cost.
4. Concomitant medicines will be used if there is any need.
5. The patients who are excluded (as per the exclusion criteria) will be refer to OPD.
6. The patient's parents / guardian will be informed about the disease and other details of the treatment.
7. After obtaining the written consent of the patient's. parents / guardian (through consent form in their vernacular language) they will be enrolled in the study.
8. Treatment would be provided free of cost.
9. In case of any adverse reactions, the patients will be referred to the OPD of Kuzhanthai Maruthuvam department of Govt. siddha medical college hospital, palayamkottai for further management.
10. The patient will be allowed to withdraw from this trial if their parents / guardian are not satisfied with this treatment and procedures.

ANALYSIS OF TRAIL MEDICINE:

1. Pharmacological analysis of the trail drug was done at the department of pharmacology. K.M. College of pharmacy, Madurai. The details are given in annexure.

2. Bio – chemical analysis was done at the department of Bio – chemistry, Government siddha Medical College, Palayamkottai.

3. Anti microbial study was also done at Malar Micro Diagnostic centre, Palayamkottai.

4. The details and the results are given in the annexure.

DRUG REVIEW

PREPARATION AND PROPERTIES OF TRAIL MEDICINE

Name of the medicine - **Kandupaarangi chooranam(internal)**

Akirkattai Thailam(external)

Reference - Gunapadam Mooligai vaguppu, Pg :216,6

fzLghuqfp #uzk

Njitahd ruFF:

- fzLghuqfp (Pygmaeopremna herbecea) -150 gms

nraKiw:

ruffpid Rjjpj J edF ,bjJ #uzkhffp t]jpufhak nraJ vLjJ nfhssTk

- msT : 2-4 gm fhiy› khiy› ,UNtis
- mDghdk : nteeh
- jUk gpzpfs : %ffpy KdehfNfhit, gpdehfNfhit:-
- MAlfhyk : 3 khjqfs
- fzLghuqfp : Pygmaeopremna herbacea
- Family : Verbenaceae
- gadgLk cWgG : Nth
- Rit : ifgG
- jdik : ntggk
- gphpT : fhhgG

nraif:

- ntggKdlhffp
- jhJntgggfwwp

F z k:

“f z Lghuqf⁄naDQ r⁄WNjf F z Nly

fhnyqNf g⁄jjnkqNf fgejh ndqNf

njh z LnjhlLj njhlhRthr fhr nkqNf

RunkqNf ntw⁄naqNf njhd⁄Neh naqNf

k⁄z L Gh⁄ kerehf Nfhi t naqNf

nts⁄eU z znuqNf t⁄wwfh nyqNf

M z Lglhr rjRuq fLgG nkqNf

aoiyaf NenaqNf aiwF tNu”

CHEMICAL CONSTITUENT:

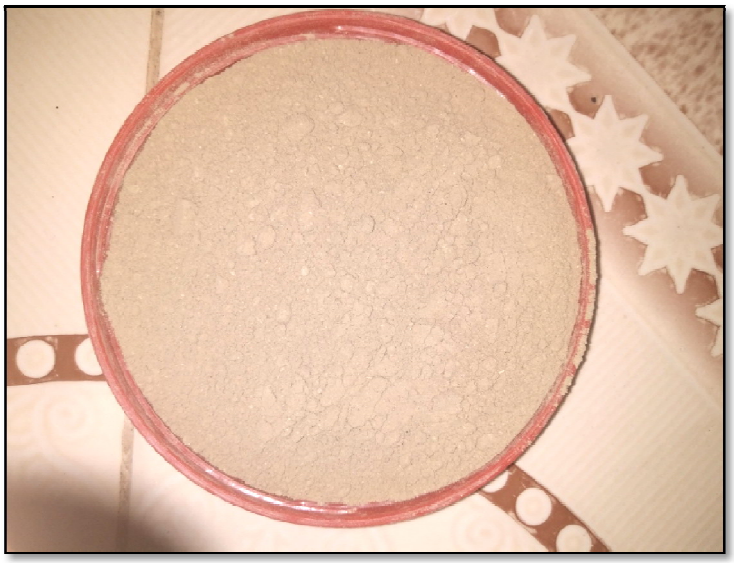
Saponins oleanolic acid d-mannitol

ACTIVITY:

Antipyretic, Anti - inflammatory

f z Lghuq fp

f z Lghuq fp Rtu z k



AKIRKATTAITHAILAM (EXTERNAL)

mfpwflil ijyk:

Njitahd rufFfs:

1. mfpwflil (Aquilaria agallocha) - XU gyk (35 gm)
2. eyny z n z a (Gingelly oil) - XU gb (1.3Lit)
3. gRkghy (Cow milk) - xU gb (1.3.lit)
4. mjpkJuk (Glycyrrhiza glabra) - xU gyk (35 gm)
5. jhdwpffhaNjhy (Terminalia Bellirica) - xU gyk (35gm)

nraKiw:-

mfpwflilf Fbeh› eyny z n z a› gRtpdghy t i ff F xU gb vLjJ gRtpd ghy tplliujJf fyeJ vhpjJ k z y gjjjpy vLjJf nfhssTk

jUk Neha

mfpwflilj ijyjij Kbjijykhf gadgLjj ehfNfhit, Nkfk %ffilgG Kjypa Nehafs eqFk

Malfhyk:-

xU M z L

- mfpwflil - Aquilaria Agallocha
- Family - Thymeleacea
- gadgLk cWgG - flil
- Rit - fhhgG› ifgG› rpW , dpgG
- jdik - ntggk
- gphpT - , dpgG

nraif:

- ntggK z lhffp
- gpjjehngUffp
- tffKUffp

F z k:-

“ehrpa i lgG e t put pb jh S Neha

tR e i kgG i l f s t pl N l F k - Ngr py

RfU kaq Fe J i z K i yaha eyy

mfU kujjh ywp

jshej t pUjjUffhe jff k z jjhy

c i sej Ruk i d j J NkhLk - t shej pfOk

khNd mfpwG i ff F thej pa Nuhr f kNghk

jhNd j shr rpAWQ rhwW”

CHEMICAL CONSTITUENT:-

Agarospirol, Aquillicochin, Holocellose, Lingnan, Pentosan, Essential oil

ACTIVITY:-

Anti - pyretic, Analgesic and anti oxidant

mjpkJuk	-	Glycyrrhiza glabza
Family	-	Fabaceae
gadgLk cWgG	-	Nth
R i t	-	, dpgG , i fgG
j d i k	-	j lgk
gphpT	-	, dpgG

nra i f:

- c s s oyhwwp
- Nfh i oa fwwp
- cukhff p

F z k:

“j p j j p f F k j p k J u f F z j i j n a L j J i u f f p y

r p u k a f f Q R u j h f e j p h p N j h l q f s g p j j Q r j j p f F k p J

G i f e n j L f F k N r l L k j i j g g p j j N u h f j i j

m j j p g g p w w p d N k f e j d i d t h j e j p i d a W j j p L k”

CHEMICAL CONSITUENTS:-

Beta glycyrrhetinic acid liquiritigenine, disodium, glycyrohetinic acid, glycyricin

ACTIVITY:-

Immuno modulator, Anti -viral, anti -tussive, antioxidant, anti -microbial, Hepatoprotective

- j h d w p f f h a - Terminalia bellirica
- Family - Combrectaceae
- g a d g L k c W g G - N j h y
- R i t - J t h g G
- j d i k - n t g g k
- g p h p T - , d p g G

nraif:-

- J t h g g p
- N f h i o a f w w p
- k y k p s f f p
- c u k h f f p

F z k:-

“r p y e j p t p l k f h k p a g G z r o h d N k f q

f y e J t U k t h j g p j j q f h N y h - l y h e J l y p y

C d w p f f h a n t g g K j p u g p j J q f u f F e

j h d w p f f h a i f a p n y L j j h y

M z ghng z Nk d f foFk x s Ak Fk

Nfh z fnfhs thjg j j f nfhs i fNghk-jhd f fha

nfh z l thf F Nk f kWk $ wh m d ww z Ak

f z l thf f thjkNghk fh z ”

CHEMICAL CONSTITUNET:-

Termilignan, Thannilignan, anolginan B identified

ACTIVITY:-

Analgesic, Antiallergenic, Antibronchitic, Anti-inflammatory, Antioxidant, Antiperoxident, Antiviral, Brochodilator, Immunosuppresant, Astringent.

DRUGS FOR AKIRKATTAI THAILAM

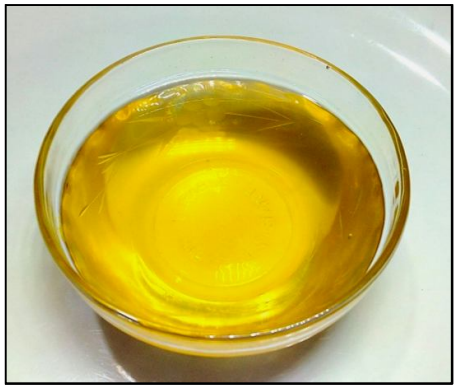
m f℘w f l i l

gRk ghy

m j℘k J uk

j h d w℘f f ha

ey n y z n z a



RESULTS AND OBSERVATION

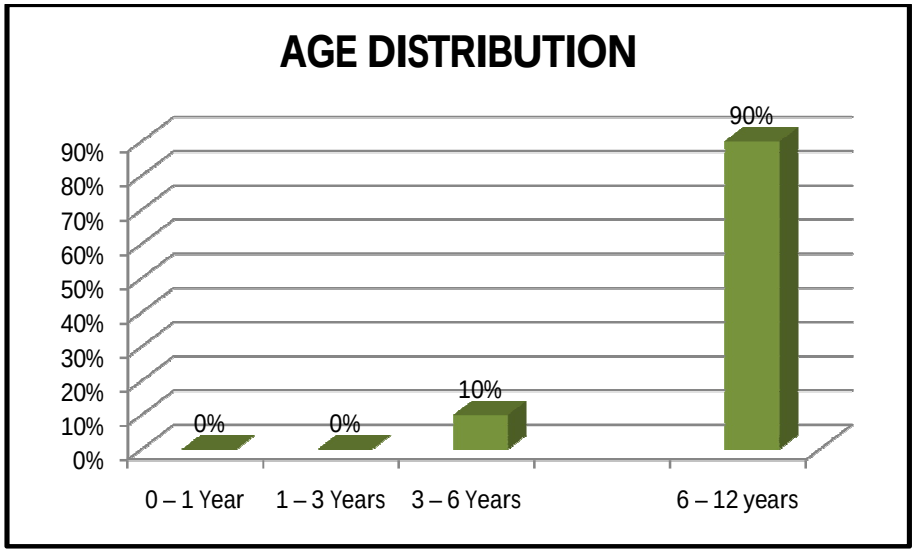
RESULTS WERE OBSERVED WITH RESPECT TO THE FOLLOWING VITERIA

1. Age distribution
2. Sex distribution
3. Religion distribution
4. Informant
5. Diet
6. Social environmental status
    i. Parent's occupation
    ii. Socio – economic status
7. Paruvakaalangal
8. Thinaigal
9. Aetiological Factors
10. Mode of onset
11. Clinical Features
12. Family history
13. Uyir Thathukkal
14. Udal thathukkal
15. Envagai Thervugal
16. Nei Kuri
17. Investigation
18. Result.

For this study results 20 In – patients and 20 out – patients were selected.

1. AGE DISTRIBUTION:-

Sl.No.	Age	No. of Cases	Percentage
1.	0 – 1 Year Kaapu and Chenkeerai	-	-
2.	1 – 3 Years Thaalaattu, Sappaani, Mutham, Varugai	-	-
3.	3 – 6 Years Anbuli, Chitril, Chiruparai, Chiruther, Paethai (Female) and Pillai (Male) Paruvam	4	10%
4.	6 – 12 years Paethumbai (Female) Chiruparuvam (Male)	36	90%

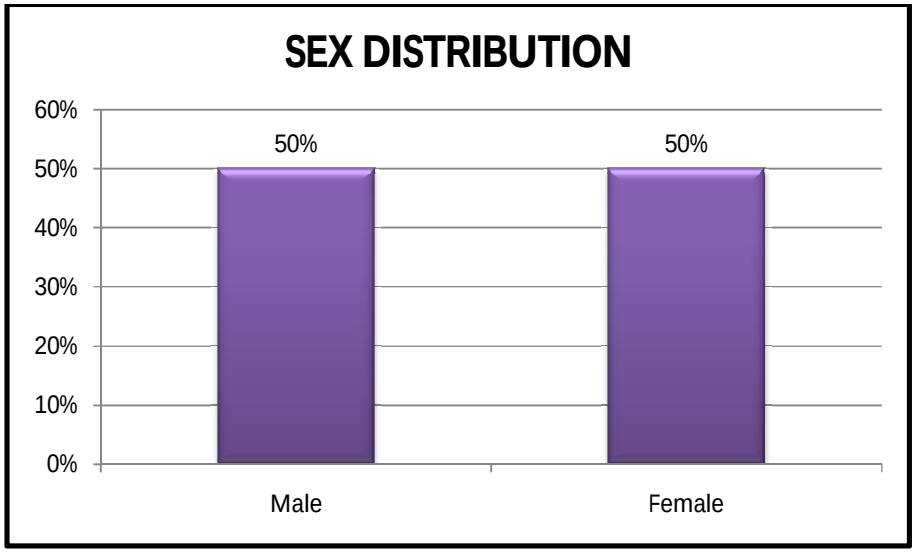


Inference:

Therefore the above table indicates that children under the age group of 3 years to 6 years (10%) are mostly affected, 90% childrens are affected in the age group of 6 years – 12 years.

2. Sex Distribution:

l.No.	Sex	No. of Cases	Percentage
1.	Male	20	50%
2.	Female	20	50%

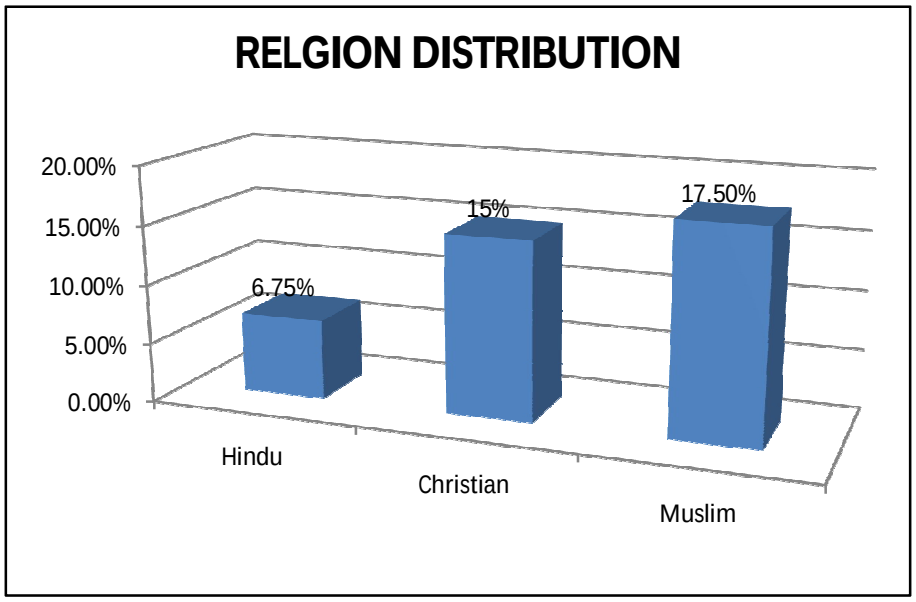


INFERENCE:

Among 40 cases of study 20 were male children (50%) and 20 were female children (50%) both childrens are equally affected.

3. RELIGION DISTRIBUTION:

l.No.	Religion	No. of Cases	Percentage
1.	Hindu	27	6.75%
2.	Christian	6	15%
3.	Muslim	7	17.5%

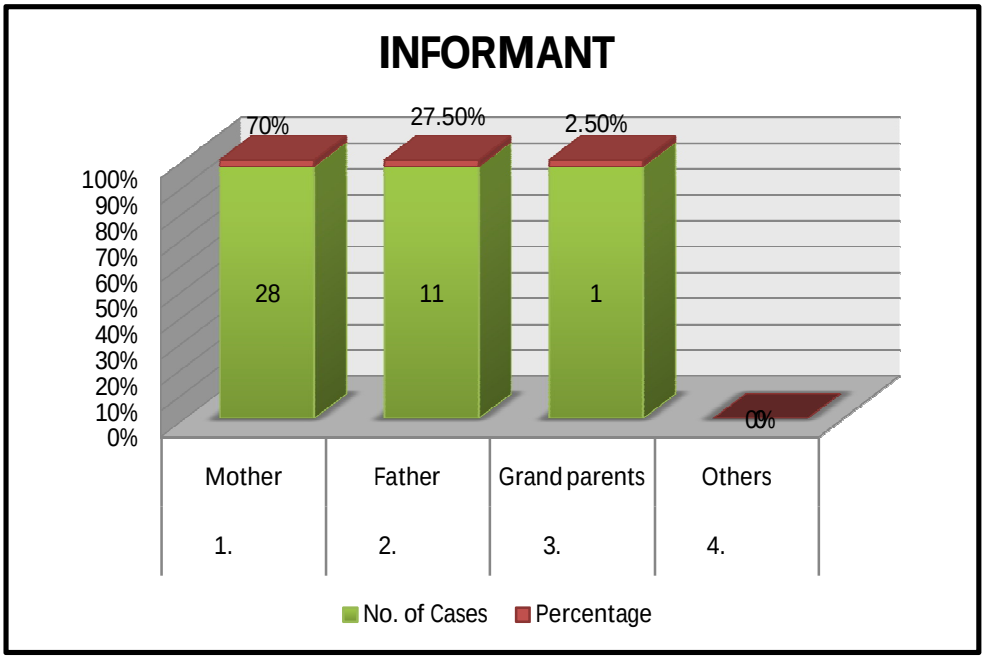


INFERENCE:

Out of 40 cases 67.5% were Hindus 15% were Christian and 17.5% were Muslim.

4. INFORMANT:

l. No.	INFORMANT	No. of Cases	Percentage
1.	Mother	28	70%
2.	Father	11	27.5%
3.	Grand parents	1	2.5%
4.	Others	0	0%

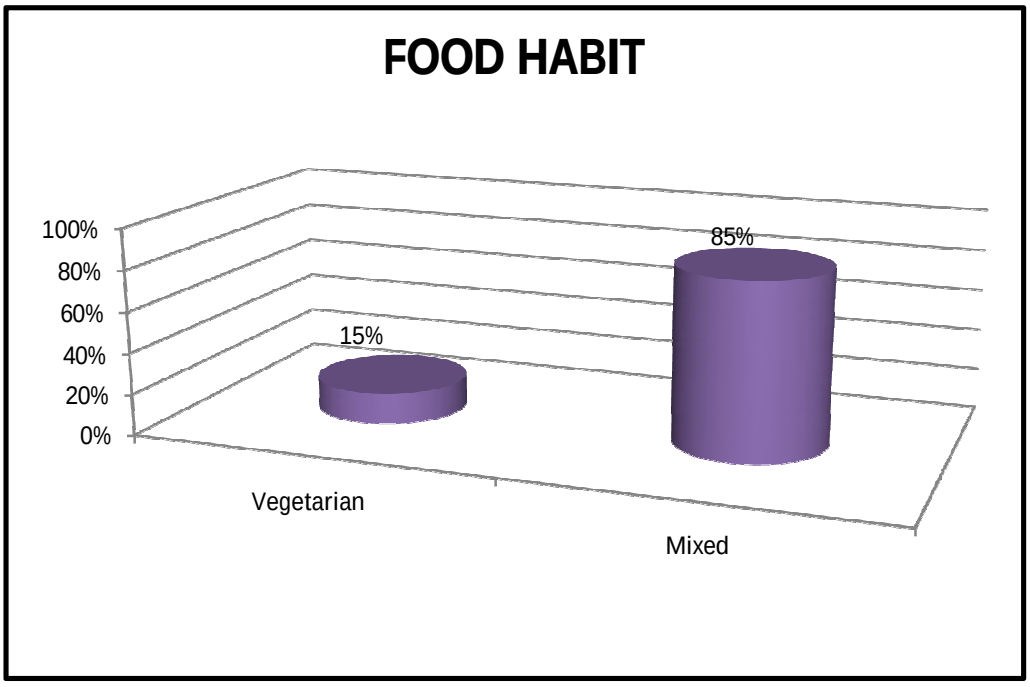


INFERENCE:

According to this 70% of cases were good reliability 27.5% of cases fair reliability, 2.5% of cases not reliable.

5. DIET:

l. No.	Food habit	No. of Cases	Percentage
1	Vegetarian	6	15%
2	Mixed	34	85%



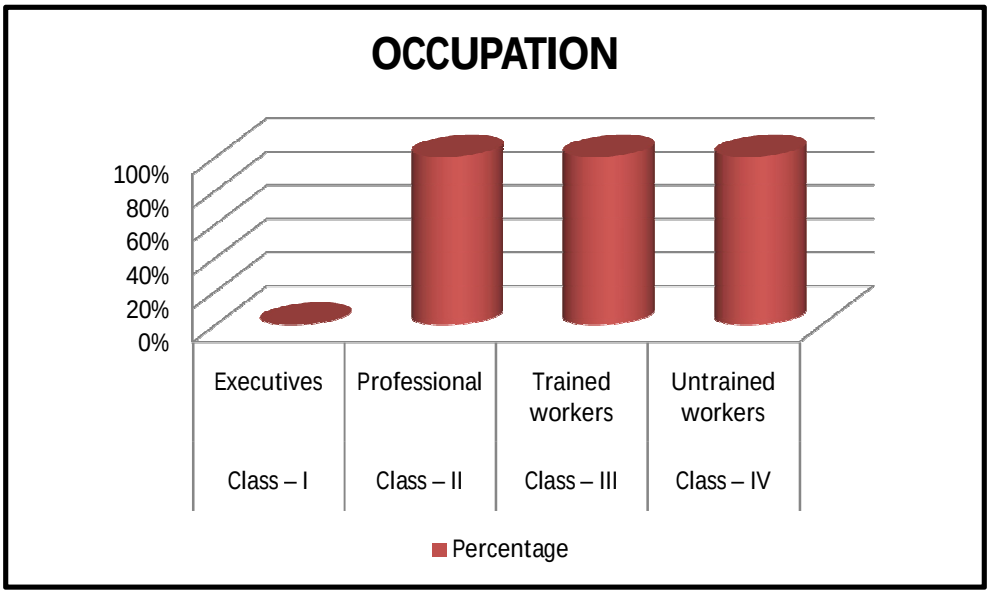
INFERENCE:

Out of 40 cases 15% were vegetarian and remaining 85% mixed diet.

6. SOCIAL ENVIRONMENTAL STATUS:

I. PARENTS OCCUPATION

l. No.	Grade	Occupation	No. of Cases	Percentage
1.	Class – I	Executives	0	0%
2.	Class – II	Professional	4	10%
3.	Class – III	Trained workers	6	15%
4.	Class – IV	Untrained workers	30	75%

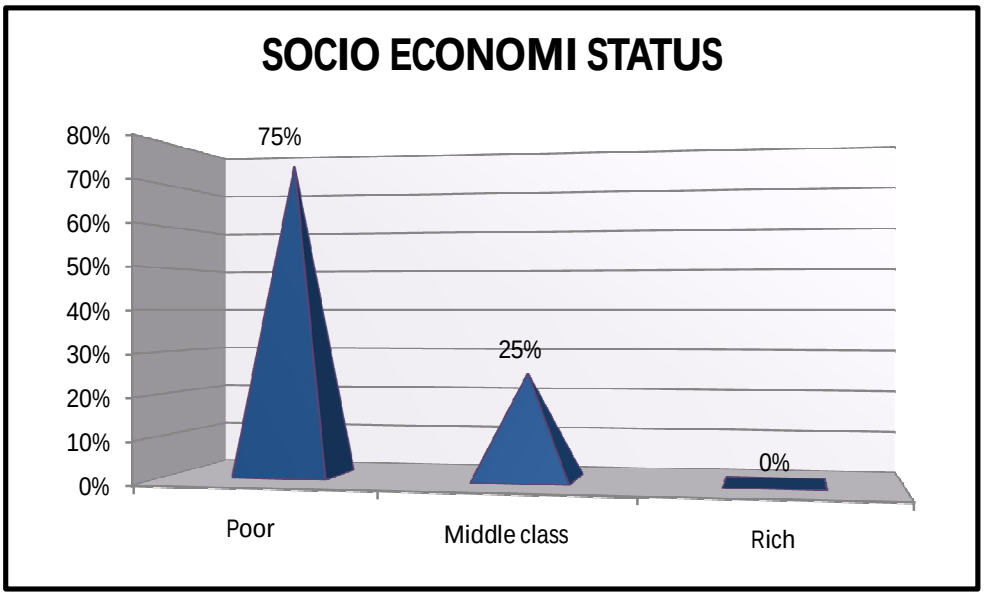


INFERENCE:

Out of 40 cases, 75% of cases were children of untrained workers.

II. SOCIO ECONOMIC STATUS:

l. No.	Socio Economic Status	No. of Cases	Percentage
1.	Poor	30	75%
2.	Middle class	10	25%
3.	Rich	0	0%

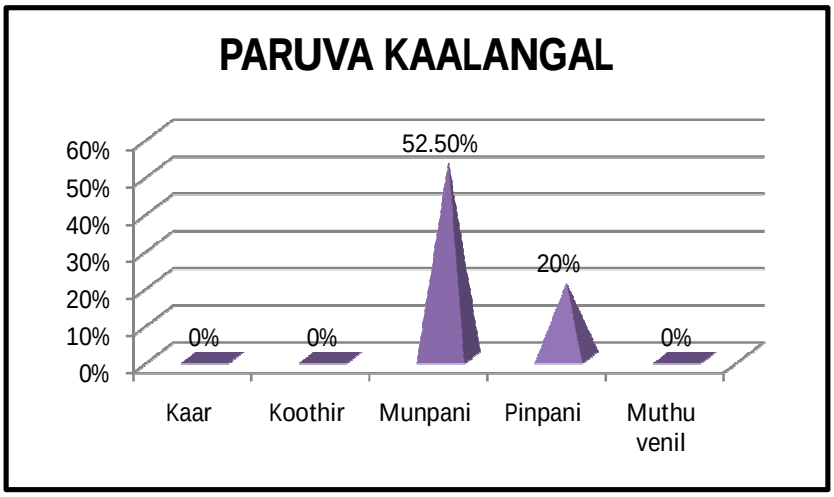


INFERENCE:

Parent's occupation and socio – economic status may be reason while the patients were predisposed to develop **Neer Peenisam.**

7. DISTRIBUTION OF PARUVA KAALANGAL:

l. No.	Paruva Kaalangal	No. of Cases	Percentage
1.	Kaar (Aavani, Purattai) (August – October)	0	0%
2.	Koothir (Ayppasi, Karthigai) (October - December)	0	0%
3.	Munpani (Maarkazhi, Thai) (December - February)	21	52.5%
4.	Pinpani (Maasi, Pankuni) (February - April)	8	20%
5.	Elavenil (Chithirai, Vaikasi) (April - June)	11	27.5%
6.	Muthu venil (Aaani, Aadi) (June - August)	0	0%



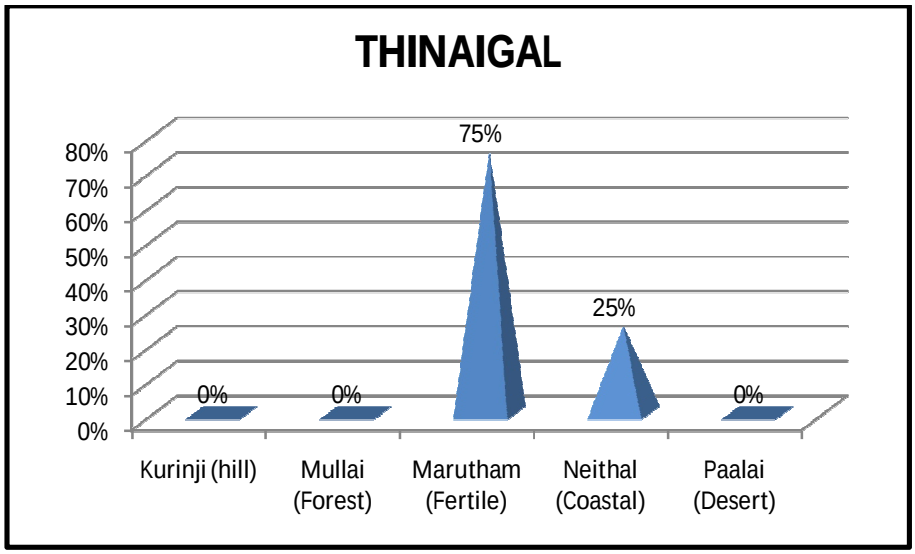
INFERENCE

Among the patients, 52.5% of the disease comes under the muntani kaalam and 20% of the incidence comes under the pinpanikaalam 27.5% in Elaveni kaalam.

The prevalence of disease under munpani kaalam, pinpani kaalam and Elavenil Kaalam.

8. DISTRIBUTION OF LANDS (THINAIGAL)

Sl.NO.	Thinai	No. of Cases	Percentage
1	Kurinji (hill)	0	0%
2	Mullai (Forest)	0	0%
3	Marutham (Fertile)	30	75%
4	Neithal (Coastal)	10	25%
5	Paalai (Desert)	0	0%

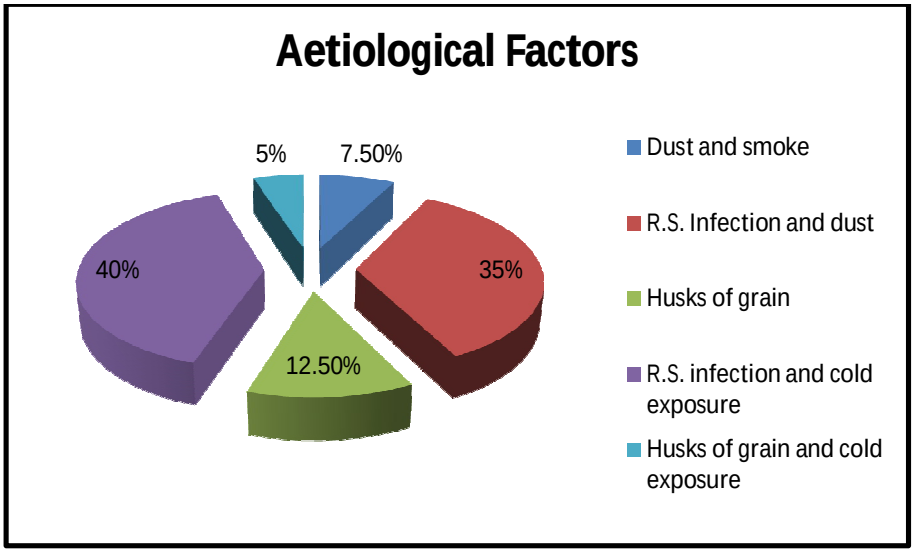


INFERENCE:

According to siddha concept, no disease occur to the people living in marutham, but today's people entirely differs for their ancestors both in dietary and other habits. And also the study was conducted in and around Tirunelveli, a marutham land and neithal land. So majority of the cases in from the marutham land.

9. AETIOLOGICAL FACTORS:

l. No.	Aetiological Factors	No. of Cases	Percentage
1.	Dust and smoke	3	7.5%
2.	R.S. Infection and dust	14	35%
3.	Husks of grain	56	12.5%
4.	R.S. infection and cold exposure	16	40%
5.	Husks of grain and cold exposure	2	5%



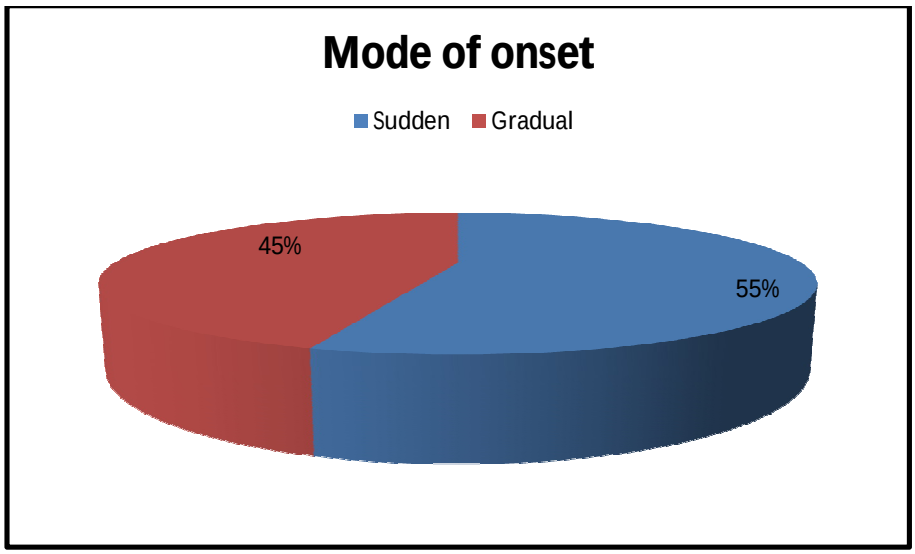
INFERENCE

Among the In – patients, 40% of the patients respiratory infection and dust exposure 35% of the patients had respiratory infection and cold exposure, 12.5% of the patients had husks of grain exposure and 7.5% of the patients and dust and smoke exposure; and 5% hashusks of grains and cold exposure collectively.

Above showed that dust respiratory infections and cold exposure were the main aetiological factors among these children.

10. MODE OF ONSET:

Sl. No.	Mode of onset	No. of Cases	Percentage
1.	Sudden	22	55%
2.	Gradual	18	45%



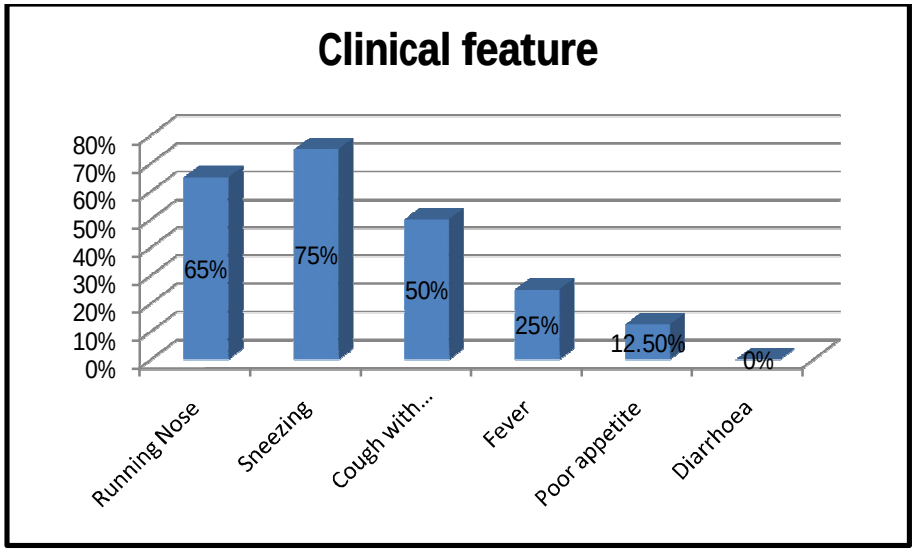
INFERENCE:

The signs and symptoms of patients with Neer Peenisam.

11. CLINICAL FEATURE:

The signs and symptom of patients with Neer peenisam.

Sl. No.	Signs and Symptoms	No. of Cases	Percentage
1	Running Nose	26	65%
2	Sneezing	30	75%
3	Cough with expectoration	20	50%
4	Fever	10	25%
5	Poor appetite	5	12.5%
6	Diarrhoea	0	0%



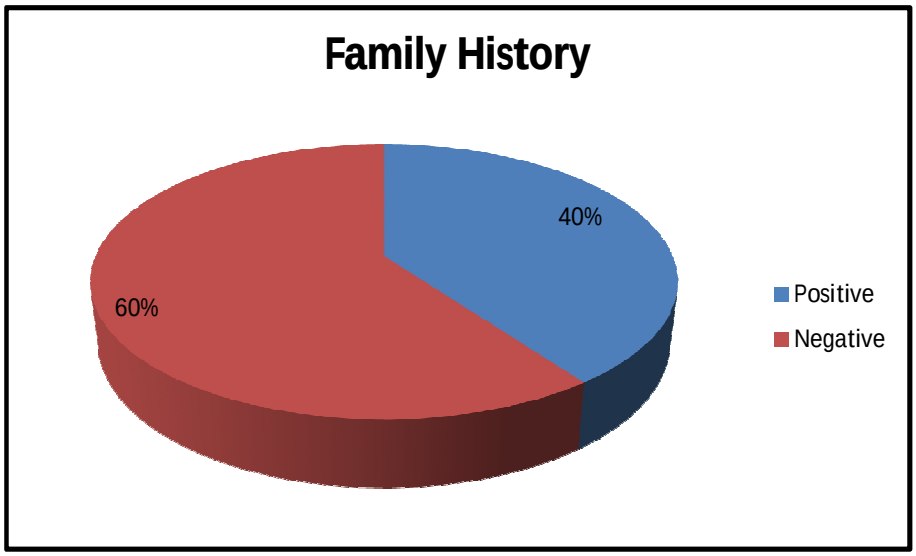
INFERENCE:

Major clinical symptoms reported to be running nose and sneezing (90%) after treatment it was reduced 65% of cases had running nose before treatment after treatmentit was reduced to 75% 12.5 cases had poor diet intafe, it was reduced to 2%

respectively 75% of cases had sneezing, it was reduced to 5% and most of the other clinical signs were relieved after treatment.

12. FAMILY HISTORY:

l. No.	**Family History**	**No. of Cases**	**Percentage**
1.	Positive	16	40%
2.	Negative	24	60%



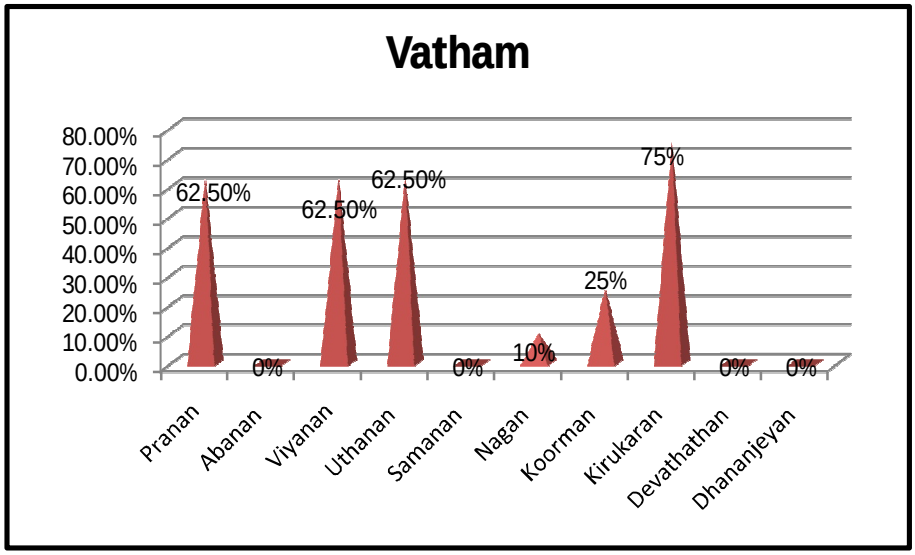
INFERENCE:

Out of 40 cases, 16 (40%) cases have positive family history and 24 (60%) cases have negative family history.

13. UYIR THATHUKKAL:

A. DERANGEMENT OF VATHAM:

L. NO.	TYPES OF VATHAM	NO. OF CASES	PERCENTAGE
1.	Pranan (gpuh z d)	25	62.5%
2.	Abanan (mgh z d)	0	0%
3.	Viyanan (tpahd d)	25	62.5%
4.	Uthanan (c j h d d)	25	62.5%
5.	Samanan (r k h d d)	0	0%
6.	Nagan (eh f d)	4	10%
7.	Koorman ($Hk d)	10	25%
8.	Kirukaran (fpUf f u d)	30	75%
9.	Devathathan (Nj t j j j d)	0	0%
10.	Dhananjeyan (j d Q n r a d)	0	0%

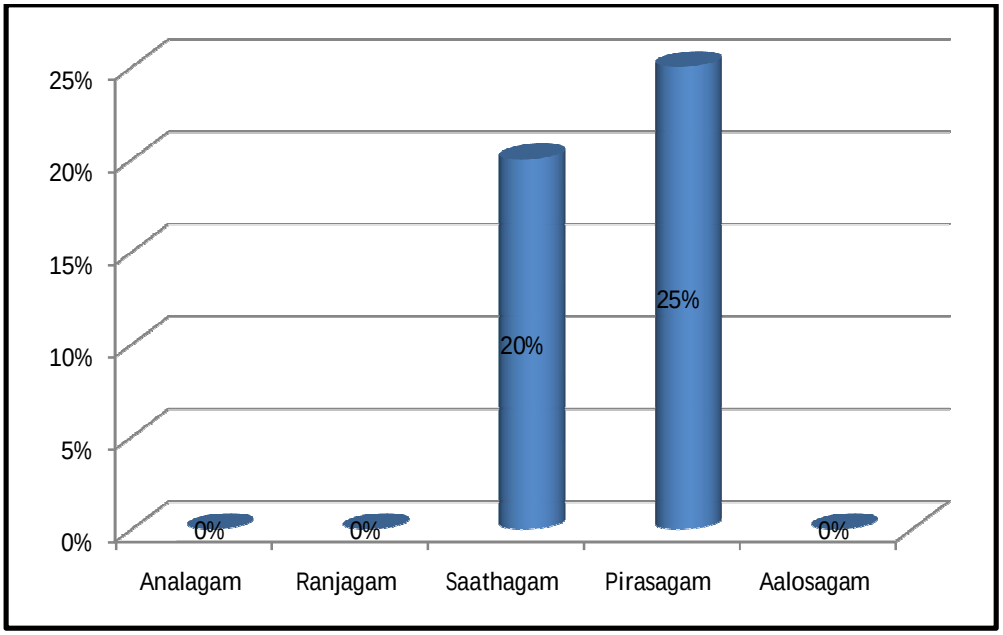


INFERENCE:

Out of 40 cases, pranan, viyanan, uthanan, Nagan, koorman, kirukaran were affected in all the 100% of patients Nagan was affected 10% of the patients and kirukaran was affected in 80% of the patients.

b**. DERANGEMENT OF PITHAM:**

Sl. No.	Types of Pitham	No. of Cases	Percentage
1.	Analagam (m d y k)	0	0%
2.	Ranjagam (, uQ r f k)	0	0%
3.	Saathagam (r h j f k)	8	20%
4.	Pirasagam (g uh r f k)	10	25%
5.	Aalosagam (M N y r f k)	0	0%

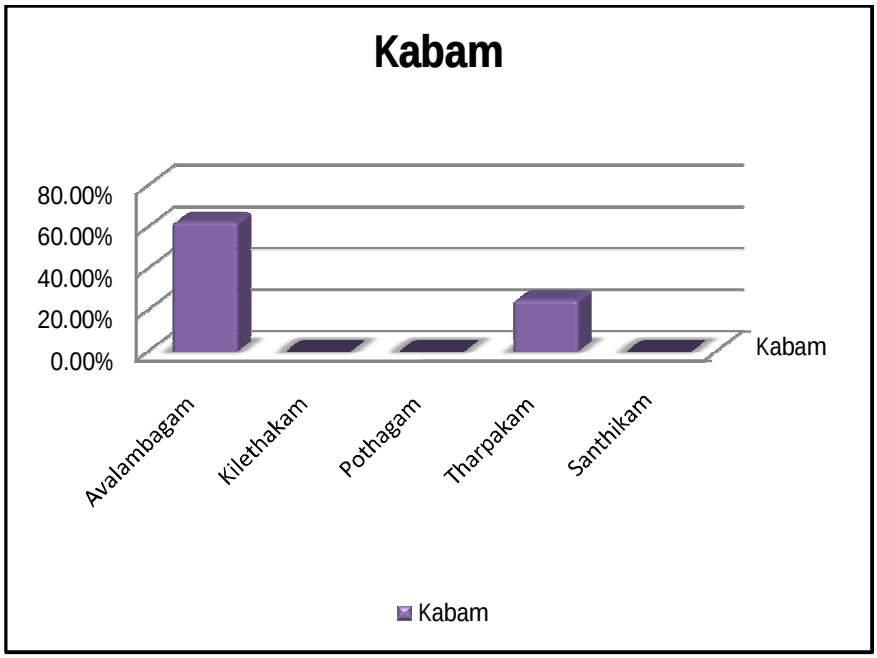


INFERENCE:

Pirasagam was affected 25% of patients, saathagam was affected in 20% of the patients.

C. DERANGEMENT OF KABAM

Sl. No.	Types of Kabam	No. of Cases	Percentage
1	Avalambagam (m t y kg f k)	25	62.5%
2	Kilethakam (f⁄Ny j f k)	0	0%
3	Pothagam (Ngh j f k)	0	0%
4	Tharpakam (j wg f k)	10	25%
5	Santhikam (r e j⁄ f k)	0	0

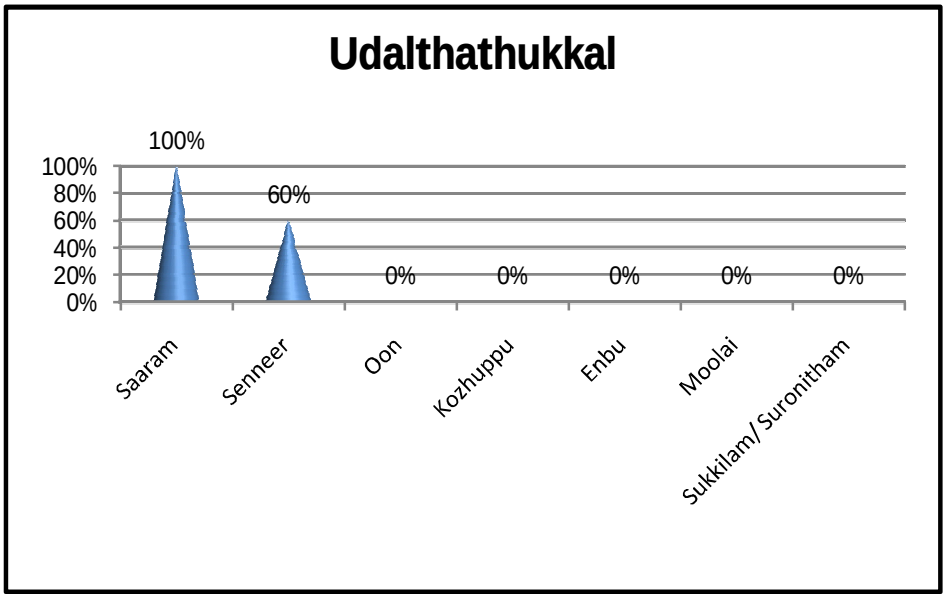


INFERENCE:

Avalambagam was affected in 62.5% of the patient in the disease and 25% santhikam was affected of the patient in the disease.

14. UDAL THATHUKKAL:

l. No.	Udalthathukkal	No. of Cases	Percentage
1.	Saaram (rhuk)	40	100%
2.	Senneer (nreeH)	24	60%
3.	Oon (C d)	0	0%
4.	Kozhuppu (nfhOgG)	0	0%
5.	Enbu (v dG)	0	0%
6.	Moolai (% i s)	0	0%
7.	Sukkilam/ Suronitham (Rf fpyk / RNuh z pjk)	0	0%

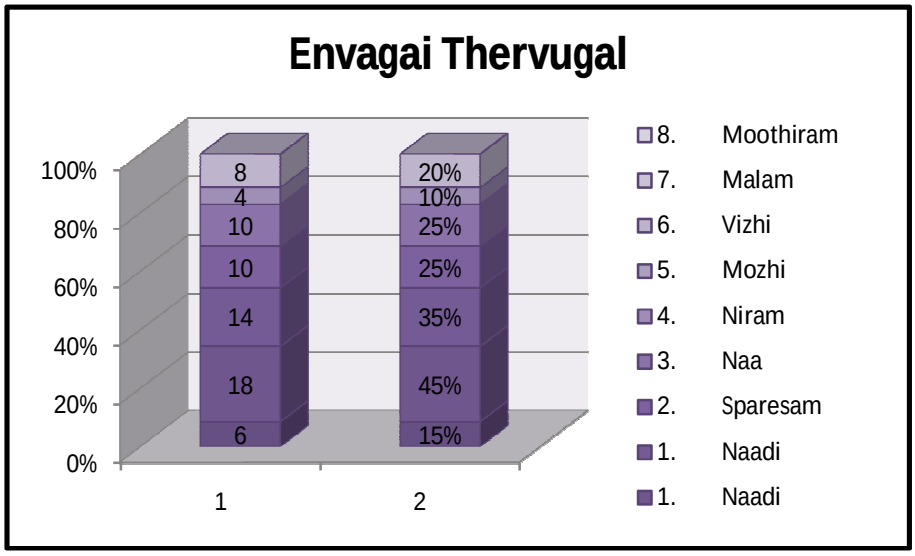


INFERENCE:

Among the 40 patients saaram was affected in 100% of the patients and senneer was affected in 60% of the patients.

15. ENVAGAI THERVUGAL:

l. No.	Udalthathukkal	No. of Cases	Percentage
1.	Naadi (ehb) thjgpjjk a. thjfgk b. gpjj fgk	6 18 14	15% 45% 35%
2.	Sparesam (]ghpr k)	10	25%
3.	Naa (eh)	10	25%
4.	Niram (epwk)	4	10%
5.	Mozhi (nkhop)	0	0%
6.	Vizhi (tpop)	8	20%
7.	Malam (kyk)	0	0%
8.	Moothiram (%jjpuk)	0	0%

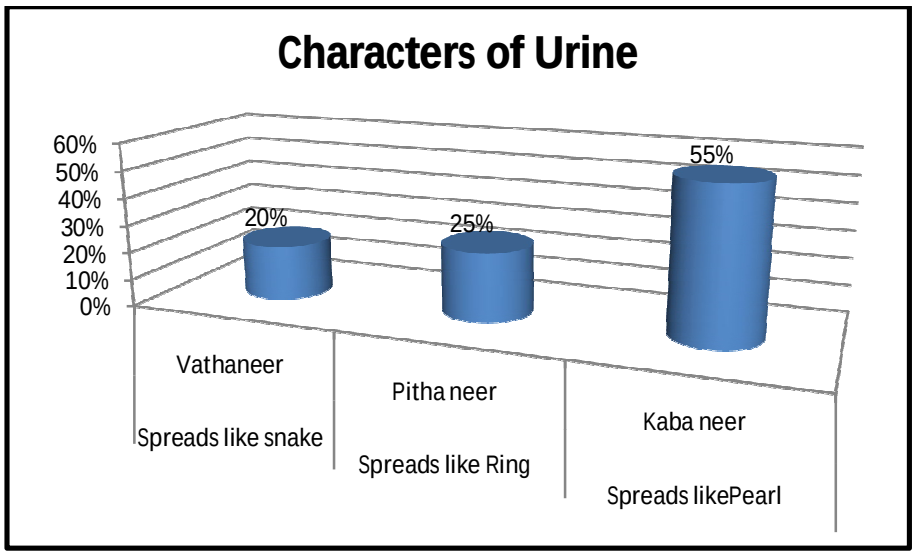


INFERENCE:

Among the 40 cases, sparisam affected in 25% of the patients, Naa affected in 25% of the patients, Niram affected in 10% of the patients. Vizhi affected in 20% of the patients.

16. NEIKURI:

l. No.	Character of Urine	Neikuri Reference	No. of cases	Percentage
1.	Spreads like snake	Vathaneer	8	20%
2.	Spreads like Ring	Pitha neer	10	25%
3.	Spreads likePearl	Kaba neer	22	55%



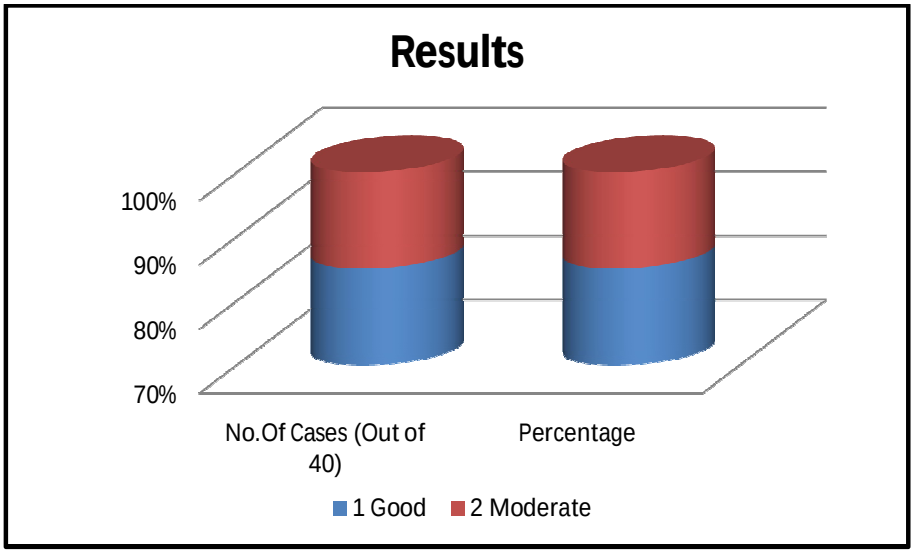
INFERENCE:

Vatha neer observed in 8 (20%) of cases; pitha neer observed in 10 (25%) of cases and kaba neer observed in 22 (55% of) cases.

17. RESULTS

Among 40 cases, the results were observed as follows,

Sl.No.	Result	No.Of Cases (Out of 40)	Percentage
1	Good	34	85%
2	Moderate	6	15%



Inference :

85% showed good results and 15% showed moderate response, these results are based on the clinical improvement.

OUT PATIENTS RECORD

S. No	OP.No	Name	Age/Sex	No of days Treated	Treates Stated Date	Remarks
1.	1578	Sandhana Kumar	11yrs/MC	24 days	5.1.16	Good
2	7534	Ithris Mohammed	7yrs/MC	28days	23.1.16	Good
3	9618	Kabees Absal hameed	12yrs/Mc	28 days	29.1.16	Fair
4	9873	Indumathi	10yrs/Fc	24days	30.1.16	Good
5	9999	Jaya	8yrs/Fc	24 days	30.1.16	Good
6	10046	Blessy	12/Fc	24days	30.1.16	Good
7	10047	grazy	8/Fc	24days	30.1.16	Fair
8	10504	Sandhiya	7yrs/Fc	28 days	1.2.16	Good
9	11295	Sheeba	7yrs/Fc	24 days	3.2.16	Good
10	14760	Hatheesha	8yrs/Fc	28days	13.2.16	Good
11	15569	Sandhanam	11yrs/MC	24days	16.2.16	Good
12	16898	Sowmiya	10yrs/Fc	24 days	19.2.16	Fair
13	17189	Valimuthu	8yrs/Fc	24 days	20.2.16	Good
14	17709	Muthu Krishnan	11yrs/Mc	24 days	22.2.16	Good
15	17544	Kiruba	7yrs/Fc	28days	22.2.16	Good
16	19561	Mohammed ithris	11yrs/Mc	24 days	27.2.16	Fair
17	19541	Abishek	12yrs/Mc	28days	27.2.16	Good
18	19954	Akshaya	8yrs/Fc	24 days	29.2.16	Good
19	22203	Vegatesh	12yrs/Mc	24days	7.3.16	Good
20	22859	Thasleema	8yrs/Fc	24days	9.3.16	Good

INPATIENTS CASE SHEET REPORT

S. No	IP No	Name of patient	Age/sex	Duration of illness	Signs and symptoms	Admission date	Discharge date	No.of days Treated	Result
1	158	Ithris	7/MC	3 months	Cold, cough , sneezing,running nose , headache	24/01/16	04/02/16	11	Moderate
2.	223	Sophia	8/FC	1 month	Fever,cold, cough, sneezing,running nose , headache	29/02/16	16/02/16	18	Good
3.	272	Gowtham	12/ MC	4 months	Cold, cough , sneezing,running nose , headache	22/02/16	10/03/16	19	Good
4.	585	Senbagavalli	10/FC	20 days	Cough with expectoration, running nose ,head ache	03/03/16	10/03/16	07	Good
5.	664	Benit	12/MC	2 months	Cold, cough , sneezing,running nose , headache	10/03/16	28/03/16	18	Good
6.	713	Ramya	06/FC	1 month	Fever,cold, cough, sneezing,running nose, headache	16/03/16	23/03/16	07	Good
7.	835	Dalfin	7 / MC	3 months	Cough with expectoration, running nose ,head ache	28/03/16	13/04/16	16	Good
8.	1145	Mukesh	6 / MC	20 days	Cold, cough , sneezing,running nose, headache	29/04/16	18/05/16	20	Good
9.	1153	Dinesh	10/MC	1month	Fever, cold, cough, sneezing,running nose, headache	30/04/16	18/05/16	19	Good
10.	1222	Harivignesh	12/ MC	2 months	Cough with expectoration, running nose ,head ache	07/05/16	02/06/16	26	Good
11.	1133	Arjun	6 / MC	10 days	Fever, cold, cough, sneezing, running nose, headache	20/05/16	03/06/16	14	Good
12.	1387	Anuvinaya	12 / FC	2 weeks	Fever, body pain, nasal polyp, headache	26/05/16	03/06/16	8	Good
13.	1391	Subin	12/MC	1 week	Cough with expectoration, running nose ,head ache	26/05/16	03/06/16	8	Good

14.	1388	Anunavee na	7 / FC	1 month	Fever, body pain, nasal polyp ,headache	26/05/16	06/06/16	11	Good
15.	1453	Madhesh	7/ MC	2 months	Cold , sneezing , headache with vomiting	02/06/16	12/06/16	10	Good
16.	1523	Jeevitha	8 / FC	1 month	Cold, cough , sneezing,running nose , headache	11/06/16	17/06/16	6	Good
17.	1524	Rakesh	9 / MC	20 days	Fever, body pain, nasal polyp ,headache	11/06/16	17/06/16	6	Moderate
18.	1546	Ramesh	12/MC	1 month	Cough with expectoration , running nose ,head ache	14/06/16	22/06/16	8	Good
19.	1547	Shanthi	9 / FC	15 days	Cough with expectoration , running nose ,head ache	14/06/16	22/06/16	8	Good
20.	1548	Fathima	6/FC	10 days	Fever, body pain, nasal polyp ,headache	14/06/16	22/06/16	8	Good

INFERENCE:

The above all 20 cases of Inpatients, Neer Peenisam had been very well response with Kandupaarangi chooranam (internal) and Akirkattai thailam(external).

LABORATORY INVESTIGATIONS

BT – Before Treatment, AT - After Treatment, P – Polymorphs, L – Lymphocytes, E-Eosionophils, ESR – Erythrocyte Sedimentation Rate, Hb - Haemoglobin A- Albumin, S – Sugar, D – Deposits,N - Nil

S.No.	P.No	Name of the patient	i. Haematological Investigation														Urine Analysis						Motion Analysis			
			WBC Total Count cells / cu.mm		WBC differential count						ESR – mm/ Hr				Hb gm%		Before Treatment			After Treatment			Before Treatment		After Treatment	
					BT			AT			BT		AT				A	S	D	A	S	D	Ova	Cyst	Ova	Cyst
			BT	AT	P%	L%	E%	P%	L%	E%	½ hr	1hr	½ hr	1hr	BT	AT	N	N	N	N	N	N	N	N	N	N
1	58	Ithris	10000	10050	44	44	9	44	48	4	6	12	4	8	12	12	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
2	23	Sophia	10000	9500	52	39	7	58	39	2	9	18	5	10	10	11	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
3	72	Gowtham	9000	8800	59	38	3	50	48	2	3	6	3	6	11	11	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
4	85	Senbagavalli	8600	8800	55	35	10	55	40	5	7	14	6	12	12	13	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
5	64	Benit	10000	10100	53	44	2	50	47	1	5	10	4	8	9	11	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
6	13	Ramya	9500	9600	62	30	8	62	33	3	10	20	6	12	10.4	10.5	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
7	35	Dalfin	9400	9200	58	36	6	54	42	2	6	12	5	10	12.1	12.6	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
8	145	Mukesh	10200	10100	56	37	7	60	35	1	8	16	7	14	10.3	10.8	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
9	153	Dinesh	9750	9800	59	34	4	64	32	1	11	22	9	18	10.2	11.6	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
10	222	Harivignesh	8600	8700	48	40	8	54	44	2	7	14	6	12	11	12	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
11	133	Arjun	10100	10100	60	35	2	60	38	2	12	24	7	14	10	10.9	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
12	387	Anuvinaya	9800	9600	50	41	6	50	46	3	11	22	8	16	11.2	11.4	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
13	391	Subin	9000	9100	44	44	9	47	46	5	5	10	4	8	9.9	10.4	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
14	388	Anunaveena	11200	11400	60	32	8	62	36	2	10	20	9	18	10.3	10.9	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
15	453	Madhesh	8800	9000	59	36	5	60	36	2	9	18	5	10	12.2	12.8	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
16	523	Jeevitha	8300	8400	60	34	6	61	36	3	6	12	6	12	11	12	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
17	524	Rakesh	9200	9400	48	43	7	51	46	2	11	22	7	14	9.1	10.9	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
18	546	Ramesh	8500	8600	52	40	8	58	40	2	6	12	4	8	11.5	12.3	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
19	547	Shanthi	8800	9000	62	30	8	62	35	3	12	24	6	12	9.5	10.8	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
20	548	Fathima	9500	9600	60	33	5	60	38	1	6	12	6	12	10	10	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil

ABSOLUTE EOSINOPHIL COUNT DETAILS

S.NO	OP.NO	NAME	AGE/ SEX	AEC(BT)	AEC(AT)
01.	10047	Grazy	8yrs/Fc	440	380
02.	10504	Sandhiya	7yrs/Fc	620	376
03.	11295	Sheeba	7yrs/Fc	520	410
04.	14760	Hatheesha	8yrs/Fc	480	690
05.	15569	Sandhanam	11yrs/Mc	980	355
06.	16898	Sowmiya	10yrs/Fc	340	320
07.	17189	Vallimathi	8yrs/Fc	435	324
08.	17709	Muthu Krishnan	11yrs/Mc	490	610
09.	19954	Akshaya	8yrs/Fc	540	378
10.	17544	Kiruba	7yrs/Fc	728	480

DISCUSSION

According to Siddha texts, **Neer Peenisam** is an ailment of childhood and the disease is predominantly concerned with the Sinusitis in children .In this study 40 cases were treated at the post graduate department. Siddha methods of diagnosis were carried out and recorded in the selection Proforma, and the diagnosis was confirmed with the help of modern investigations. The patients were treated with the drug **Kandupaarangi chooranam (internal) and Akirkattai thailam (external)** and clearly observed. The observations are discussed here under.

1. DISTRIBUTION ACCORDING TO AGE:

This study indicates that children's under the age group of 6-12 years (90%) are mostly affected since they contribute to school going age they may be exposed to a variety of allergens.

2. DISTRIBUTION ACCORDING TO SEX:

Among 40 cases of study 50% were male children and 50% were female children.

3. DISTRIBUTION ACCORDING TO SOCIO ECONOMIC STATUS:

Most of the patients (75%) belonged to low income group, 25 % of the cases were middle income group . Due to poverty, malnutrition, overcrowding and unhygienic practices this disease is more prevalent among the poor.

4. DISTRIBUTION OF PARUVA KAALANGAL:

According to paruvakaalam the highest distribution (52.5%) was noticed in Munpani kaalam, 12.5% of patients are affected in Kaar kaalam,20% of patients are affected in Pinpani kaalam and 27.5% in affected in Elavenil kaalam.

5. DIET HISTORY:

According to diet history 85% of cases had mixed diet, and 15% had vegetarian diet. The highest incidence of cases was observed in mixed diet of food habits.

6. FAMILY HISTORY:

According to family history 40% of the cases had positive family history, and 60% of the cases had no relavent history. The highest incidence of cases had positive family history.

7. DISTRIBUTION OF LAND:

Among the selected cases 25% of them were from Neithal land and 75% of them were from Marutham land. This is due to the fact that the study was conducted at Chennai, a Neithal land and so majority of the cases were from that land.

8. **DISTRIBUTION ACCORDING TO UYIR THATHUKKAL:**

i. **Derangement of Vatham:**

Due to derangement of vatham, the following symptoms may occur. Pranan (62.5%) causes difficulty in breathing. Viyanan (62.5%) , uthanan (62.5%) causes cough, Naagan was deranged in (20%) of cases as some patients had difficulty in playing and other activities, koorman was deranged in (25%),kirukaran was deranged in(75%)of cases cause cough, running nose .

ii. Derangements of Pitham:

Saathagam was deranged in 20% of patients causing imitations in their daily physical activities, and Prasagam was deranged in 25% of cases.

iii) Derangements of Kabam:

Due to derangements of kabam, Avalambagam was deranged in 62.5% of patients causing wheezing and difficulty in breathing, Tharpakam was deranged in (25%) of patients .

9. DISTRIBUTION ACCORDING TO EZHU UDAL KATTUGAL:

In ezhu udal kattugal, saaram (100 %), seneer (60%), of cases were affected

10. ENN VAGAI THERVUGAL:

According to this study, Naa was affected in 25 % of cases (coated and pallor), Sparisam was affected in 25 % of cases (fever), Niram was altered in 10 % of patients due to anaemia, Vizhi was affected in 20 % of cases causing pallor, 45% of cases had Vadhakaba naadi, 15% of cases had vadha pitha naadi & 35% of cases had pithakaba naadi,were affected.

11. NEI KURI:

In this study most of the patients had kaba neer (55%) which stood as a pearl indicating that the most predominant manifestation of this disease is kabam.

12. DISTRIBUTION ACCORDING TO AETIOLOGICAL FACTORS:

Respiratory infections contribute to 40% of the most common aetiological factors, dust exposure 35% of cases were affected by respiratory infection and cold exposure,12.5%of the cases had husks of grain exposure and 7.5% of the cases dust and smoke exposure, and 5% had husks of grains and cold exposure collectively.

13. DISTRIBUTION OF CLINICAL FEATURES:

Major clinical symptoms reported to be running nose and sneezing 90% after treatment it was reduced to 65%of cases had running nose before treatment and after treatment was reduced to 75%.12.5%cases had poor diet intake, it was reduced to 2% respectively.75%of cases had sneezing ,it was reduced to 5%and most of the other clinical signs were relieved after treatment.

14. LAB INVESTIGATION:

According To Modern Aspect

Laboratory investigation

Each and every patient was insisted to undergo lab investigation . The details about the investigations are enclosed. Routine examination of blood and urine and motion were done before and after treatment. In most of the cases (80%) elevated Absolute Eosinophil count was decreased after treatment .

Treatment

The trial medicine for the treatment of **Neer Peenisam** were **"Kandupaarangi Chooranam** " administered orally with hot water and **Akirkattai Thailam** externally.

15. BIOCHEMICAL ANALYSIS:

Qualitative analysis of the trial drug revealed the presence of ferrous iron which is more soluble and readily absorbable form that in treating children who are associated with anaemia. The study also indicates the presence of chloride, calcium, alkaloid, starch and reducing substances etc.

16. PHARMACOLOGICAL ANALYSIS:

Pharmacological analysis showed the drug has significant anti inflammatory antihistamine activity.

17. RESULT:

Satisfactory improvement was reported in 7 days of commencement of treatment. Out of 40 cases 34 patients (85%) showed Good response with remarkable relief of symptoms, frequency of similar episodes is reduced and improvement in school attendance. Moderate result was observed in 6 cases (15%) with reduction in signs and symptoms.

SUMMARY

The aim of this dissertation subject is to cases the efficacy of trail drug **"Kandupaarangi Chooranam" (Internal)** and **Akirkattai thailam (External)** for **Neer Peenisam** without any adverse effects.

The Etiopathogenesis and symptoms of Neerpeenisam have been corelated with that of sinusitis in children disease with evidence of literature.

Clinical diagnosis and selection of cases was based on clinical features decribed in siddha text book and also using Questionnarie.

The medicine chosen for Treatment and management of **Neer Peenisam was Kandupaarangi Chooranam** 2-4gm with hot water internally; twice a day and **Akirkattai thailam for use mudithailam (head bath)** Externally.

The trail drug selection is based on its siddha pharmacological action to pacify the dernanged vathem, pitham and kabam and also due to its immune modulatory effect of ingrediants.

Forty children were diagnosed with **Neerpeenisam** clinically and they were observed for clinical diagnosis, laboratory diagnosis, during the treatment and the results were dealt in the proforma.

All the patients were kept under strict dietary control during the treatment the observation on effect of therapy was encouraging.

Laboratory diagnosis was done by modern methods of examinations.

The treatment covers Administration of trail drug according to the age and also includes Pranayama, Yogasana, Mudra, educating the patients and their parents about sinusitis in children disease and management adherenee to treatment and dispel fear and misconceptions.

The documentation of observation made during the clinical study showed that the drug is clinically effective.

Antibacterial activity of "**Kandupaarangi Chooranam**" showed that it inhibited the growth of bacterial strain against streptococcus pheumonia.

In the phoamaadogical analysis, the train drug **"Neerpeenisam**" had significant Anti – Histamine, Anti – inflammatory action which by the virtue of controlling the airway hyper responsiveness help to improve the patients quality of life.

CONCLUSION

The Respiratory Allergies in children, increasing prevalence and its. impact in reducing the quality of life in children has prompted the author to choose an effective drug without any side effects, it is believed to improve the quality of life in childrens.

The treatment of "**Neerpeenisam", "Kandupaarangi Chooranam**" has showed good response with no adverse effect and ensure to be safe, effective and simple to administration. The ingredients of maantha ennai are feasible and useful, these compounds may serves as potentially useful drug at lower cost.

Statisticaly it is concluded that the treatment was effective and significant, clinical results were found to be significant good Improvement was found in 85% of cases moderate in 15% of cases.

Therefore it is concluded that the trail drug **"Neerpeenisam**" alond with the modalities of pranayama, Yogasana, Mudra and patients education will benefit the society and meet patients and familys expectations of satisfactory care in children.

The Tamil Nadu Dr.M.G.R. Medical University

#69, Anna salai, Guindy, Chennai-600 032.

This certificate is awarded to

Dr./~~Mr.~~/~~Ms.~~ S. PRIYA DHARSHINI

for participating as ~~Resource Person~~ / Delegate in the Fifteenth Workshop on

"Research Methodology & Biostatistics"

for AYUSH Post Graduates & Researchers

Organised by the Department of Siddha

The Tamil Nadu Dr. M.G.R. Medical University from 23.06.2014 to 27.06.2014.

Dr. N. KABILAN M.D. (Siddha) Reader, Dept. of Siddha	**Dr. JHANSI CHARLES,** M.D. Registrar	**Prof. Dr. D. SHANTHARAM,** M.D., D.Diab., Vice-Chancellor

GOVT. SIDDHA MEDICAL COLLEGE

PALAYAMKOTTAI

SCREENING COMMITTEE

Candidate Reg. No: 32131A007

Department: KUZHANTHAI MARUTHUVAM - BRANCH IV

This is to certify that the dissertation topic An observational clinical study of "NEER PEENISAM" with the efficacy of "KANDUPAANGALI (SIRUTHEKU) CHOORANAM (INTERNAL) AND AKIRKATTAI THAILAM (EXTERNAL)" has been approved by the screening committee.

Branch	Department	Name	Signature
1	Pothu Maruthuvam	Dr.S.Aathi Narayanan MD(S).,	
2	Gunapadam	Dr.M.Ravi Chandran MD(S).	
3	Sirappu Maruthuvam	Dr.S.Kaniraja MD(S).,	
4	Kuzhanthai Maruthuvam	Dr.D.K.Soundararajan MD(S).,	
5	Noi Nadal	Dr.S.K.Sasi MD(S).,	
6	Naju Nool Maruthuvam	Dr.M.Thiruthani MD(S).,	

Remarks:

INSTITUTIONAL ETHICAL COMMITTEE,
GOVERNMENT SIDDHA MEDICAL COLLEGE, PALAYAMKOTTAI,
TIRUNELVELI-627002,
TAMIL NADU, INDIA.

Ph :0462-2572736/2572737/2582010 Fax:0462-2582010
Email ID:gsmc.palayamkottai@gmail.com

F.No.GSMC/ 5676/P&D/Res/IEC/2014 Date:16.07.2015

CERTIFICATE OF APPROVAL

Address of Ethical Committee	Government Siddha Medical College, Palayamkottai,Tirunelveli, Tamilnadu, India.Pincode- 627002.
Principal Investigator	Dr. S.PRIYADHARSHINI ,MD(S)-II year, Department of Kuzhanthai Maruthuvam, Reg.No:**321314007**
Guide	Dr.D.K.SOUNDARARAJAN,MD(S), Head of the Department, Dr.K.SHYAMALA,MD(S), Assistant Lecturer, Department of Kuzhanthai Maruthuvam, Govt. Siddha Medical College and Hospital, Palayamkottai. -627002.
Dissertation Topic	An observational clinical study of **"NEER PEENISAM"** with the efficacy of **KANDUPAARANGI (SIRUTHEKU)CHOORANAM (INT)&AKIRKATTAI THAILAM(EXT)**
Documents Filed	1)Protocol 2) Data Collection Forms 3) Patient Information Sheet 4) Consent form 5)SAE (Pharmacovigilance)
Clinical / Non Clinical Trial Protocol	Clinical Trial Protocol – Yes
Informed Consent Document	Yes
Any Other Document	Case Sheet, Investigation Documents
Date of IEC Approval & its Number	GSMC-II-IEC/2015-Br-IV/07/16.07.2015

We approve the trial to be conducted in its presented form.

The Institutional Ethical Committee expects to be informed about the process report to be submitted to the IEC at least annually of the study, any SAE occurring in the course of the study, any changes in the protocol and submission of final report.

Chairman 16/7/2015 Member Secretary

(Prof. Dr. M.Logamanian) (Prof.Dr.S.Soundararajan)

(For IAEC / CPCSEA usage)

Proposal number	: S.PRIYADHARSHINI/321314007 MD(S)/IAEC/KMCP/228 2015-2016.
Date first received	: 10.12.2015
Date received after modification (if any)	: NA
Date received after second modification (if any)	: NA
Approval date	: 23.12.2015
Expiry date	: 31.03.2016
Name of IAEC / CPCSEA chairperson	: N.CHIDAMBARANATHAN

Date: 23.12.2015

CPCSEA NOMINEE
INSTITUTIONAL ANIMAL ETHICS COMMITTEE
K.M. COLLEGE OF PHARMACY
MADURAI-625 107

Signature

I. A. E. C. CHAIRMAN
INSTITUTIONAL ANIMAL ETHICAL COMMITTEE
K. M. COLLEGE OF PHARMACY
MADURAI-625 107.

GOVERNMENT SIDDHA MEDICAL COLLEGE

PALAYAMKOTTAI

Certificate of Botanical Authenticity

Certified the following plant drugs used in Siddha formulation Kandupaarangi (Sirutheku)Chooranam (Internal) for the management of NeerPeenisam (Sinusitis in children taken up for Post Graduation Dissertation Studies by Dr.S.Priyadharshini (Reg No.321314007) PG Dept, of KuzhanthaiMaruthuvam are correctly identified and autherticated through Visual inspection / Organoleptic Characters / Experience, Education & Training Morphology Microscopical and Taxonomical methods.

S.N	Name	Botanical Name	Family Name	Parts used
1.	Kandupaarangi	*Pygmaeopremna herbaceae*	Verbenaceae	Root

Station: Palayamkottai

Date: 22/12/15

22/12/15

Authorized Signature

Dr. S. SUTHA, M.Sc.,M.Ed.,Ph.D.,
Associate Professor
Dept. of Medicinal Botany
Govt. Siddha Medical College
Palayamkottai, Tirunelveli - 2.

GOVERNMENT SIDDHA MEDICAL COLLEGE

PALAYAMKOTTAI

Certificate of Botanical Authenticity

Certified the following plant drugs used in Siddha formulation Akirkattaithailam (External) for the management of NeerPeenisam(Sinusitis in childrentaken up for Post Graduation Dissertation Studies by Dr.S.Priyadharshini (Reg No.321314007) PG Dept, of KuzhanthaiMaruthuvam are correctly identified and autherticated through Visual inspection / Organoleptic Characters / Experience, Education & Training Morphology Microscopical and Taxonomical methods.

EXTERNAL

S.N	Name	Botanical Name	Family Name	Parts used
1.	Akirkattai	*Aquilaria agallocha*	Thymeleaceae	Bark
2.	Athimathuram	*Glycyrrhiza glabra*	Fabaceae	Root
3.	Thandrikkaithol	*Terminalia bellerica*	Combretaceae	Dried Fruit

Station: Palayamkottai

Date: 19/12/15

Authorized Signature

Dr. S. SUTHA, M.Sc.,M.Ed.,Ph.D.,
Associate Professor
Dept. of Medicinal Botany
Govt. Siddha Medical College
Palayamkottai, Tirunelveli - 2.

ANNEXURE - II

BIO-CHEMICAL ANALYSIS OF KANDUPAARANGI CHOORANAM

PREPARATION OF THE EXTRACT:

5gms of the drug was weighed accurately and placed in a 250ml clean beaker then 50ml of distilled water is added and dissolved well. Then it is boiled well for about 10 minutes. It is cooled and filtered in a 100ml volumetric flask and then it is make up to 100ml with distilled water. This fluid is taken for analysis.

QUALITATIVE ANALYSIS

S.NO	EXPERIMENT	OBSERVATION	INFERENCE
1.	**TEST FOR CALCIUM** 2ml of the above prepared extract is taken in a clean test tube. To this add 2ml of 4% Ammonium oxalate solution	No white precipitate is formed	Absence of calcium
2.	**TEST FOR SULPHATE** 2ml of the extract is added to 5% Barium chloride solution.	No white precepitate is formed	Absence of sulphate
3.	**TEST FOR CHLORIDE** The extract is treated with silver nitrate solution	No white precipitate is formed	Absence of chloride
4.	**TEST FOR CARBONATE** The substance is treated with	No Brisk effervescence is formed	Absence of carbonate

	concentrated Hcl.		
5.	**TEST FOR STARCH** The extract is added with weak iodine solution	Blue colour is formed	**Indicates the presence of starch**
6.	**TEST FOR FERRIC IRON** The extract is acidified with Glacial acetic acid and potassium ferro cyanide.	No blue colour is formed	Absence of ferric iron
7.	**TEST OF FERROUS IRON** The extract is treated with concentrated Nitric acid and Ammonium thiocyanate solution	Blood red colour is formed	**Indicates the presence of ferrous iron**
8.	**TEST FOR PHOSPHATE** The extract is treated with Ammonium Molybdate and concentrated nitric acid	No Yellow precipitate is formed	Absence of phosphate
9.	**TEST FOR ALBUMIN** The extract is treated with Esbach's reagent	No Yellow precipitate is formed	Absence of Albumin
10.	**TEST FOR TANNIC ACID** The extract is treated with ferric chloride.	Blue black precipitate is formed	**Indicates the presence of tannic acid**
11.	**TEST FOR UNSATURATION** Potassium permanganate	It gets decolourised.	**Indicates the presence of unsaturated compound**

	solution is added to the extract		
12.	**TEST FOR THE REDUCING SUGAR** 5ml of Benedict's qualitative solution is taken in a test tube and allowed to boil for 2 minutes and add 8-10 drops of the extract and again boil it for 2 minutes.	No colour change occurs.	Absence of Reducing sugar
13.	**TEST FOR AMINO ACID** One or two drops of the extract is placed on a filter paper and dried well. After drying, 1% Ninhydrin is sprayed over the same and dried it well.	Violet colour is formed	**Indicates the presence of Amino acid**
14.	**TEST FOR ZINC** The extract is treated with Potassium Ferrocyanide.	No white precipitate is formed	Absence of Zinc.

INFERENCE:

The extract prepared from the given sample **contains starch, ferrous iron, tannic acid, unsaturated compound and amino acid.**

ANTI-INFLAMMATORY ACTIVITYOF SIDDHA PREPARATION KANDU PARANGI CHOORANAM

The anti-inflammatory activities of siddha preparation kandu parangi chooranam at a dose of 200 and 400mg/kg were evaluated using carrageenan-induced paw edema method. The inflammation was readily produced in the form of edema with the help of irritant such as carrageenan. Carrageenan is a sulphated polysaccharide obtained from sea weed (Rhodophyceae) and when injected cause the release of prostaglandins by the way it produces inflammation and edema.

REQUIREMENTS:

Animal : Albino rat (180-200 g)

Drugs and chemicals : Carrageenan (1%w/v), Diclofenac sodium (standard),

Carboxy methyl cellulose (1%w/v),

Digital plethysmo meter. U G O Basile (Italy)

Test compounds : siddha preparation kandu parangi chooranam

METHOD:

Anti-inflammatory activity was performed by the following procedure of Bhandri et al(1) The animals were divided into 4 groups each having six animals. A freshly prepared suspension of carrageenan (1% w/v , 0.1 ml) was injected to the planter region of left hind paw of each rat. One group was kept as control and the animals of the other groups were pretreated with the siddha formulation kandu parangi chooranam test Compounds dissolved with 2 ml sterile water given through orally 30 min before the carrageenan treatment. The paw volumes of the test compounds, standard and control groups were measured at 60,240,360 minutes of carrageenan treatment with the help of Digital plethysmometer (Ugo basile, Italy). Mean increase in paw volume was measured and the percentage of inhibition was calculated.

% Anti-inflammatory activity = (Vc-Vt / Vc) x 100 Where, ***Vt***-mean increase in paw volume in rats treated with test compounds, ***Vc***-mean increase in paw volume in control group of rats.

TABLE No.1

ANTI-INFLAMMATORY ACTIVITY OF SIDDHA FORMULATION

Treatment	Dose (mg/kg)	Paw volume(ml) as measured by mercury displacement at 6 hour	Percentage inhibition of paw edema
Group I **Normal saline**	10ml/kg orally	5.35±0.82	-
Group II Std	10mg/kg I.P.Diclofenac sodium	1.75±0.60	67.50%*a
Group III siddha preparation kandu parangi chooranam	200mg/kg.Orally.	2.15±0.50	60.64%*a
Group IV siddha preparation kandu parangi chooranam	400mg/kg.Orally.	1.94±0.52	63.75%*a

* Data are expressed as Mean ± S.E.M.

*Data were analyzed by one way ANOVA followed by Newman's keul's multiple range tests, to determine the significance of the difference between the control group and rats treated with the test compounds.

*a Values were significantly different from normal control at P< 0.01.

Results

Anti- inflammatory activity

Both doses of siddha preparation kandu parangi chooranam at 200mg/kg and 400mg/kg were tested for their Anti- inflammatory activity by using carrageenan Induced rat paw edema method and the results are tabulated in table no 1. The results reveals that both doses of siddha preparation kandu parangi chooranam at 200mg/kg and 400mg/kg doses possesses significant Anti- inflammatory activity when compared to control group at $p<0.01$.

ANTIHISTAMINIC AND ANTIANAPHYLACTIC ACTIVITY OF SIDDHA FORMULATION OF KANDUPARANGI CHOORANAM

INTRODUCTION

Allergy is one of the common diseases that affect mankind with diverse manifestations. The prevalence of allergy and asthma has risen in the recent years despite an improvement in the general health of the population.[1] Allergic diseases are responsible for significant morbidity and have severe economic impact.[2] Various epidemiological studies have identified the causes for an increase in the prevalence of upper and lower respiratory tract allergic diseases. Some of the postulated reasons are increasing environmental pollution [3] and increased predisposition of individuals producing excessive Ig_E through a major change in the gene pool, changing lifestyles, and an increasing awareness of the disorders.[4] Intensive research during the last several decades has highlighted the role of lymphocytes, immunoglobulins, mast cells, and various autacoids in the etiopathogenesis of allergic conditions. Inspite of the voluminous literature on the subject, the treatment of allergic diseases continues to be far from satisfactory. The available treatment options for upper and lower respiratory tract allergic diseases have major limitations owing to low efficacy, associated adverse events, and compliance issues.[5]

AYUSH, an Indian system of medicine, has described several drugs from indigenous plant sources for use in the treatment of bronchial asthma and allergic disorders. In the present study, the effects of Siddha formulation of kandu parangi chooranam were studied on the active anaphylaxis and mast cell stabilization in rats, and histamine-induced bronchospasm in guinea pigs.

MATERIALS AND METHODS

ANIMALS

Inbred Wistar rats (175–200 g) and guinea pigs (400–600g) of either sex housed in standard conditions (temperature22 ± 2° C, relative humidity 60 ± 5% and 12 h light/dark cycle) were used. They were fed with standard pellet diet and water ad libitum. ThInstitutional Animal Ethics Committee approved the experimental

protocol. Histamine and horse serum were procured from Sigma Chemicals and toluidine blue from Loba-Chemie, Mumbai. Elisa kit for Ig_E was supplied by Orion diagnostics, Espoc, Finland. All other chemicals and reagents were procured from Hi-Media Laboratories limited, Mumbai.

MAST CELL STABILIZING ACTIVITY

TREATMENT PROTOCOL

Twenty-four rats were divided into four groups of six animals in each group.

Group I served as control and received vehicle (water).

Group II (sensitized control group)

GroupIII served as the treatment control, which was treated with kandu parangi chooranam at a dose of 200mg/kg body weight, in oral route.

Group IV served as the treatment control, which was treated with kandu parangi chooranam at a dose of 400 mg/kg body weight, in oral route.

In group11 to group 1V were sensitized by injecting 0.5 ml of horse serum subcutaneously along with 0.5 ml of triple antigen containing 20,000 million Bordetella pertussis organisms (Serum Institute of India Ltd.,Pune), Once a day for 14 days.

On day 14, the rats were sacrificed 2 h after the treatment and the intestinal mesentry was taken out for the study on mast cells. Mesentries along with intestinal pieces were excised and kept in Ringer Locke solution (NaCl 154, KCl 5.6, CaCl2 2.2, NaHCO3 6.0, glucose 5.55 mM/L of distilled water) at 37oC. The mesenteric pieces were challenged with 5% horse serum for 10 min after which the mast cells were stained with 1.0% toluidine blue and examined microscopically for the number of intact and degranulated mast cells.[6]

HISTAMINE-INDUCED BRONCHOSPASM IN GUINEA PIGS

Bronchospasm was induced in guinea pigs by exposing them to 1% histamine aerosol under constant pressure (1 kg/cm2) in an aerosol chamber (24 × 14 × 24 cm) made of perplex

Glass,of the three groups of six animals each.

Group I served as control.

GroupII served as the treatment control, which was treated with kandu parangi chooranam at a dose of 200 mg/kg body weight, in oral route.

Group III served as the treatment control, which was treated with kandu parangi chooranam at a dose of 400 mg/kg body weight, in oral route.

The animals were exposed to 1% histamine aerosol under constant pressure (1 kg/cm2) in an aerosol chamber on day 0 without any treatment. The end point,preconvulsive dyspnea (PCD) was determined from the time of aerosol exposure to the onset of dyspnea leading to the appearance of convulsions.[7] As soon as PCD commenced, the animals were removed from the chamber and exposed to fresh air. This PCD was taken as day 0 value. On days 1 and 5,

2 h after the administration of the drug, the time for the onset of PCD was recorded as on day 0.

STATISTICAL ANALYSIS

The results of various studies were expressed as mean ± SEM and analyzed statistically using one-way ANOVA, followed by Newmann keul's multiple range tests. $P<0.05$ was considered statistically significant.The analysis was performed using Graphpad Prism software package (Version 4.0).

RESULTS

Mast cell stabilizing potential of kandu parangi chooranam Antigen challenge resulted in significant degranulation of the mesentric mast cells. Pretreatment of sensitized animals with kandu parangi chooranam at a dose of 200mg/kg and 400mg/kg, p.o., for 2 weeks resulted in a significant reduction in the number of disrupted mast cells ($P <0.001$) when challenged with horse serum.

EFFECT ON HISTAMINE-INDUCED BRONCHOSPASM

kandu parangi chooranam at a dose of 200mg/kg and 400mg/kg p.o., significantly prolonged the latent period of PCD ($P < 0.001$) as compared to control, following exposure to histamine aerosols on day 5 [Table no. 2].

DISCUSSION

Experimental animal model of asthma is characterized by allergen-induced immediate airway constriction and late airway reactivity to a pharmacological vasoconstrictor such as histamine and leukotrienes. Histamine is a central mediator in the pathogenesis of allergic and inflammatory disorders. In the present study, kandu parangi chooranam prolonged the latent period of PCD in guinea pigs following histamine aerosol. This may be suggestive of an antihistaminic activity following treatment with kandu parangi chooranam.

Antigen challenge, in sensitized animals, results in the degranulation of mast cells, which is an important feature of anaphylaxis. In the present study, kandu parangi chooranam showed marked protection against the mast cell degranulation following antigen challenge in sensitized animals. Mast cell stabilizing activity of kandu parangi chooranam may be attributed to the presence of active constituents which are known for their mast cell stabilizing potential against antigen–antibody reaction and/or due to the suppression of IgE antibody production, which is responsible for degranulation mast cells.[8]

This antianaphylactic and antihistaminic effect may be caused by the stabilization of the mast cell membrane, suppression of IgE, and inhibition of pathological effects induced by the release of inflammatory mediators in kandu parangi chooranam treated animals. All the above findings lend credence to the beneficial use of kandu parangi chooranam in the treatment of asthma and related conditions.

However, further studies with other experimental models, especially to explore the role of cytokines are warranted to substantiate the antiasthmatic and antiallergic activity of kandu parangi chooranam.

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TABLE NO:1 EFFECT OF KANDU PARANGI CHOORANAM ON MAST CELL STABILIZATION IN SENSITIZED RATS

GROUPS	**MAST CELLS**	
	INTACT	DISRUPTED
NORMAL CONTROL	84.22±3.45	14.95±0.80
SENSITIZED RATS	12.60±0.92	89.22±2.50
kandu parangi chooranam 200mg/kg	66.22±2.72*a	36.50±1.35*a
kandu parangi chooranam 400**mg/kg**	64.35±2.52*a	34.45±1.28*a

- Values are expressed as Mean±S.E.M

*a significantly different from sensitized control at $p<0.01$

ANTIMICROBIAL STUDIES

AIM

To study the Anti-microbial action of **KANDUPAARANGI CHOORANAM** against **Steptococcus Pneumoniae & Staphylococcus Aureus**

MEDIUM

COMPONENTS OF MEDIUM

1. Beef extract - 300gms/lit
2. Agar - 17gms/lit
3. Starch - 1.5gms/lit
4. Casein Hydroxylate - 17.5gms/lit
5. Distilled water - 1000ml
6. PH - 7.6

PROCEDURE

The media was prepared from the components and poured and dried on a petri dish. The organism was streaked on the medium and the test drug (1gm drug in 10ml water) was placed on the medium. This is incubated at 37^{C} for one over night and observed for night and observed for the susceptibility shown up clearance around the drug.

RESULT:

The test drug **KANDUPAARANGI CHOORANAM** was **Moderately sensitive against Steptococcus Pneumoniae & Staphylococcus Aureus**

MALAR MICRO DIAGNOSTIC CENTRE

65,sri Ram Popular Road,Manakavalampillai Nagar,Palayamkottai,
Ph.lab,0462-2583954,Resi,2583955 Mobile 9524591925

Name : Dr.S.Priyadharshini,MD(S)

Anti Microbial Study

Method : Kirby Bauer

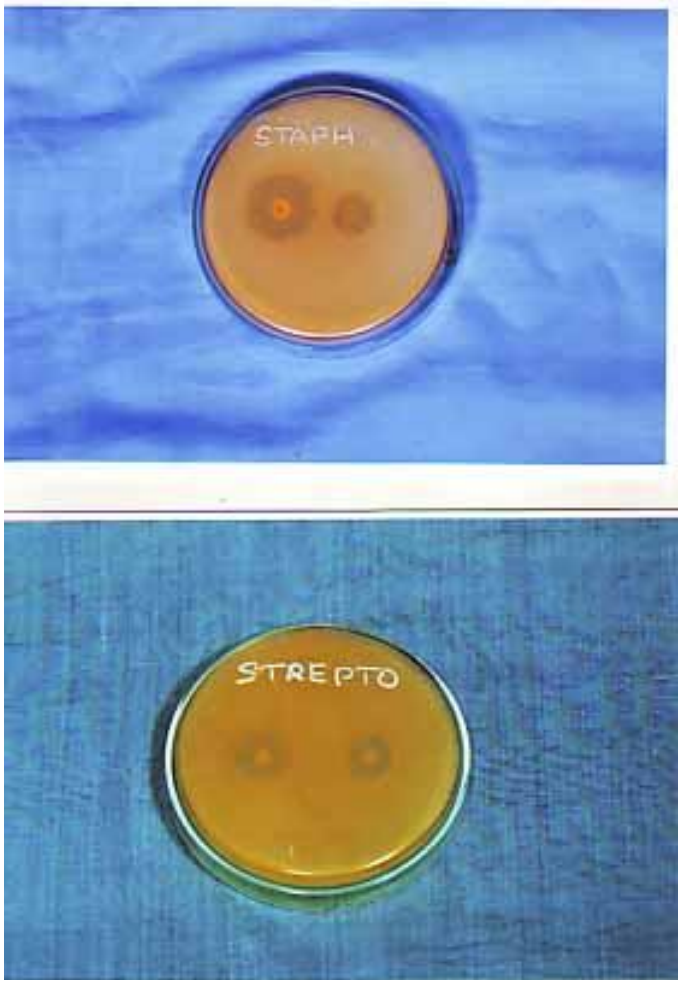
Report

S.No	Drug	Organism	Sensitivity	Zone size of Drug	Zone size of Control (Amikacin)
1.	Kandupaarangi Chooranam	Strepto coccus pneumoniae	Moderate Resistant	10mm	10mm
2.	Kandupaarangi Chooranam	Staphylo coccus aureus	Moderate Resistnat	8mm	14mm

Dr.R.Napoleon,MD.,
Consultant Microbiologist

Dear Doctor,

Thank you for your reference. If the result is not correlating with the clinical impression, please inform us to repeat the test with a fresh sample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STREPTO

CME PROGRAMME FOR TEACHING FACULTIES

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DEPARTMENT OF KUZHANTHAI MARUTHUVAM (PAEDIATRICS)
& MAGALIR MARUTHUVAM
GOVT. SIDDHA MEDICAL COLLEGE, **Palayamkottai**

CERTIFICATE

Certified that Dr. PRIYADHARSHINI. S

PG SCHOLAR - FINAL YEAR

has successfully participated as a Trainee on the six days of continuing Medical Education training programme for Teaching faculties from 8th to 13th of February 2016 held at Govt. Siddha Medical College, Palayamkottai.

13/2/16

Prof. Dr. D.K.SOUNDARARAJAN MD (s)
Head of the Department
Kuzhanthai Maruthuvam

Prof. Dr. S.SOUNDARARAJAN MD (s)., BL
Principal

CONTINUING MEDICAL EDUCATION PROGRAMME

Organized by

POST GRADUATE DEPARTMENT OF KUZHANTHAI MARUTHUVAM (PAEDIATRICS)

GOVT. SIDDHA MEDICAL COLLEGE, Palayamkottai

CERTIFICATE

This is to Certify that Dr. PRIYA DHARSHINI. S

THIRD YEAR - PG *has actively participated in the continuing Medical*

Education training programme held on ***22nd June 2016****. at Govt. Siddha Medical College, Palayamkottai*

This programme focused on a Seminar on ***"Metabolic Illness"***

22/6/16

Dr. K.SHYAMALA, M.D(s)
Co-ordinator

Prof.Dr. D.K.SOUNDARARAJAN, M.D(s)
Head of the Dept.

22/6/16

Prof.Dr. S.VICTORIA, M.D(s)
Principal

GOVT SIDDHA MEDICAL COLLEGE AND HOSPITAL
PALAYAMKOTTAI
PG. DEPT. OF KUZHANTHAI MARUTHUVAM

CONSENT FORM

An open clinical study to evaluate the safety and efficacy of Siddha sasthric formulation**"KANDUPAARANGI CHOORANAM AND AKIRKATTAI THAILAM"**for the management of **"NEER PEENISAM"**

CERTIFICATE BY INVESTIGATOR

I certify that I have disclosed all the details about the study in the terms readily understood by the parent.

Date …….

Signature……..

place ……. **Name ……**

CONSENT OF INFORMANT

I have been informed to my satisfaction, by the attending physician, the purpose of the clinical trial, and the nature of drug treatment and follow-up including the laboratory investigations to be performed to monitor and safeguard my Son / Daughter body functions.

I am aware of my right to opt out of the trial at any time during the course of the trial without having to give the reasons for doing so.

I am, exercising my free power of choice; hereby give my consent to be included as a subject in the clinical trial of"KANDUPAARANGI CHOORANAM AND AKIRKATTAI THAILAM"for the treatment of "NEER PEENISAM"

Date **Informant Signature……..**

Place: **Informant Name: …….**

Signature of Witness **Patient Name:…….**

Relationship:……

ANNEXURE – IV

GOVERNMENT SIDDHA MEDICAL COLLEGE AND HOSPITAL

BRANCH IV – KUZHANTHAI MARUTHUVAM

PALAYAMKOTTAI - 627 002.

CASE SHEET PROFORMA-"NEER PEENISAM"

Name of the Medical unit: Nationality:

I.P.No. : Religion:

Bed. No. : Date of Admission:

Name : Date of Discharge:

Age/Sex: Duration of treatment :

Occupation(Parents): **Diagnosis**:

Income(Parents): Medical Officer:

Informant:

Address:

Complaints and duration :

History of present illness :

History of past illness :

Antenatal History :

Birth and Neonatal History :

Dietetic and Nutritional History :

Developmental History :

Family History :

Social History :

Immunization History :

General Examination

1. Consciousness :
2. Decubitus :
3. Anemia :
4. Jaundice :
5. Cyanosis :
6. Clubbing :
7. Pedal oedema :
8. Lymphadenopathy :
9. Nourishment :
10. Skin changes :

Vital Signs

1. Pulse

-Rate :

-Rhythm :

-Volume :

-Character :

2. Blood Pressure (B.P). :

3. Respiratory Rate (R.R.) :

4. Temperature :

ANTHROPOMETRY

1. Wt – Weight :
2. Ht - Height :
3. Mid arm circumference :
4. Head circumference :
5. Chest :
6. Skin fold thickness :

Siddha Systems – Clinical Examination:

Poripulangal

Mei :

Vai :

Khan :

Mookku :

Sevi :

Kanmendriyam – Kanmavidayam

Kai :

Kaal :

Vaai :

Eruvaai :

Karuvaai :

Nilam

Kurinchi :

Mullai :

Marutham :

Neithal :

Palai :

Paruva Kaalam

Kaar :

Koothir :

Munpani :

Pinpani :

Elavenil :

Muthuvenil :

Udal Kattugal

Saaram :

Senneer :

Oon :

Kozhuppu :

Enbu :

Moolai :

Sukkilam/Suronitham :

Envagai Thervugal

Naadi :

Sparisam :

Naa :

Niram :

Mozhi :

Vizhi :

Malam :

Moothiram :

Vatham

Piranan :

Abaanan :

Uthaanan :

Viyaanan :

Samaanan :

Naagan :

Koorman :

Kirugaran :

Devathathan :

Dhananjeyan :

Pitham

Analam :

Ranjagam :

Sathagam :

Alosagam :

Pirasagam :

Kabam

Avalambagam :

Kilethagam :

Pothagam :

Tharpagam :

Santhigam :

Neerkuri

Niram :

Manam :

Nurai :

Edai :

Enjal :

Neikuri

Malakuri

Nirami :

Nurai :

Elagal :

Erugal :

Modern Aspects

Systemic examination

Cardiovascular systems:

1. Inspection:
2. Palpation:
3. Percussion:
4. Auscultation:

Examination of other systems

Respiratory systems:

Abdomen:

Central nervous systems:

Excretory systems:

Lab Investigations

1. Blood

TC :

DC :

Hb :

ESR :

PCV :

MCV :

MCH :

MCHC :

Total RBC count :

Peripheral blood smear :

2. Urine

Albumin :

Sugar :

Deposits :

Bile Salt :

Bile pigments :

3. Motion

Ova :

Cyst :

Occult blood :

X-ray : PNS :

X-ray Chest :

DIFFERNTIAL DIAGNOSIS :

PROGNOSIS :

MARUTHUVAMURAI :

ADVICE :

DAILY PROGRESS :

Date	Symptoms	Medicine

GOVERNMENT SIDDHA MEDICAL COLLEGE AND HOSPITAL

BRANCH IV – KUZHANTHAI MARUTHUVAM

PALAYAMKOTTAI - 627 002.

ADMISSION – DISCHARGE SHEET

Name of the medical unit : Nationality:

I.P.No : Religion:

Bed No : Informant:

Name : Date of Admission:

Age/Sex : Date of Discharge:

Occupation(parents) : No. of days treated :

Income(parents) : **Diagnosis**

S.No	**Clinical Features**	**During admission**	**During discharge**

Place:

Date: **Signature of the Medical Officer,**

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- Neha ehly Neha Kjy ehly jpulL -2- k.r z KfNtY
- Mjkulrhkphjk vDk itjjpa rhu rqfpufk - fejrhkp gpsis
- kj iy Neha njhFjp I -A.T.S.V Siddha Medical College.
- rpjj kUjJthqf RUffk - f.R.cjjkuhad
- [tulrhkphjk - MWKfkgpsis
- rjf ehb
- jpUfFws - jpUtsSth
- F zghlk %ypif tFgG - f.r. KUNfr Kjypahh.
- kUjJt jhtutpay - v].NrhkRejuk
- gpsis gpzpkUjJtk - kU. m. Rejhuh[d
- rpjjh mWit kUjJtk - f.R. cjjkuhad.

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